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ORIGINAL ARTICLES.

ASIATIC CHOLERA---SOME ACCOUNT OF ITS HISTORY, NATURE AND TREATMENT.

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It is the duty of a physician who has lived and practiced in several epidemics of Asiatic cholera to give his impressions and experience. So long are the intervals between the visits of this disease, that it cannot be studied clinically, and so a majority of present practitioners have never seen it. But they must prepare to meet it, and very probably the coming year. I have, as clearly as possible, given a pen-picture of it as it passed before me on several occasions, hoping it may be to young physicians, for whom it is written, of some value in time of need.

When the cholera first appeared in Europe, in 1830, the physicians were at a loss how to treat it.

They searched the reports of the English physicians in the East Indies, where the cholera had been since 1817 under observation, but found little information. Having no better resources, they adopted their crude, heroic treatment. But soon experience of their own, of a very painful nature, drove them from this. The alarming mortality of the cholera in that year, as it traveled from Asia through European Russia and Poland toward the center of the continent, is not to be wondered at when we recall the remedies applied. Venesections of a pound and a half at first, and later in smaller quantities, till blood refused to flow; mustard poultices over the bowels and legs; leeches to the abdomen, and behind the ears; burning on the bowels paper saturated with alcohol, or dropping on them melted sealing-wax, besides bathing patients in a warm solution of liquor caustic.

Internally, twenty or thirty grains of calomel, in repeated doses, was administered until at times, in the then seldom made post-mortem examination, ounces were found in the intestines. Opium (generally in the tincture) was so freely administered that the patient never rallied from the narcotism. Mucilaginous drinks were freely given.

After trying these remedies in vain, the European physicians resorted to astringents, stimulants and opium in small doses (2 to 5 drops of tincture). Sulphuric acid, a remedy long before freely used in diarrhœa, typhus and scarlatina to restore the chemically changed blood to its normal state, was resorted to here also. Tinctures of cardamon, catechu, capsicum, cantharides and camphor, chloroform, emetics and escharotics, calomel and castor oil. In collapse, hydrocyanic acid, brandy-and-chalk mixture and turpentine were used. Of all these remedies, the stimulant tinctures of camphor and cantharides are most valuable. The patient was wrapped in blankets wrung out of warm or cold water.

Hypodermic injections of opium have been resorted to for a long time.

Lately, hypodermic injections of large quantities of water, from two to four ounces, have been experimented with.

But before being justified in the use of such heroic treatment, we must ask, Where does the chemical separation of the blood take place?

Is it in the lungs or in the arteries, after the venous blood has passed, aerated or not aerated, through the lungs, having left more and more the solid parts in the arteries?

Or does this separation begin contemporaneously in the whole circulation? It is found in post-mortem section of cholera bodies as a dark, syrup-like fluid without fibrin, having in the veins and arteries dark-brown lumps. Gradually, as the separation increases, the fluid necessary to life is destroyed.

Can hypodermic injections into the areolar tissue, or infusion with a tap into the peritoneum of water or medicated water, be used in sufficient quantities to replace and correct the first or greater discharges of rice water by the bowels, not to speak of that which is vomited? Can it restore the already separated fluid? The course of the cholera is rapid. There is no time for these injected remedies to be absorbed, even if, as has been well said, it were possible to keep the cramping, restless patient quiet long enough to administer them. Will it not follow in the same rapid course towards the intestines? But can it be prosecuted in an epidemic in which the practitioner is called every half-hour by day, and oftener at night, to other patients? Can such operations be left to the nurse or family in a time when the morale of the community is out of joint, help rare, friend forsaking friend, husband wife, and parents their children? Often the nurse has yielded to the temptation of the plentiful stimulants.

The majority of cholera patients are not found in well regulated hospitals or in palatial residences.

There are floating in the present medical literature, since the cholera is reasonably expected to visit our continent from Europe next year, many theories etio-

logical and some therapeutical which may be read and studied in the room of the student, but are of no practical value to the young practitioner. He has to face this curse of the human family, and needs weapons.

It may not be out of place for the writer to give the practical results of his observation and experience during four epidemics of cholera, in two of which he spent nearly all his bodily strength in attendance on patients day and night.

From the researches of Hayem, of Paris, in microscopical examinations of the blood of cholera patients to Koch's last results in which he found that the specific poison is a kind of spirillium rather than a bacillus, limited to the mucous skin of the intestines and is not found in the mesenteric glands nor in the blood. It is only the result not the cause of the disease. Where, then, is the separation or chemical separation of the serum from the solids of the blood? Is it in the mucous membrane of the intestines or in all the capillary vessels of the system? Does this separation begin gradually in the minute vessels and more and more as it reaches the larger vessels leave the solids of the blood and permit only the serum to pass on to the intestinal canal to be accumulated until expelled? It is thus the channel of drainage for the system in normal life when the fountain of the kidneys is stopped. How, then, can this spirillium, found only in the mucous skin of the intestine, destroy life? We have not gained any facts from these chemical and microscopical researches to aid us toward a rational treatment of Asiatic cholera. We have learned practically to prevent and lessen its malignity by the researches of the sanitary branch of the political economists, as seen in the epidemic of 1874 in Europe.

We know now that by the decomposition of animal and vegetable matter in the soil around houses, cesspools, manure heaps, stagnant ditches and sewer-openings, under proper atmospheric and telluric conditions, the fermentation of the fungus of cholera-poison is bred and transported. In localities where proper sanitary improvements are instituted, this disease has lost its malignity, and by further general and systematic sanitary provision, the sting of this scourge may be removed.[1]

An epidemic of cholera is fearful in its mortality from its commencement to its acme; and its departure, as statistics prove, is almost always gradual. The laity, and even some physicians, concluded from this that the profession, if not responsible, are incompetent or helpless in this disease. This is a most unjust charge against a profession which, regardless of self-preservation, is devoted entirely to assisting the helpless victims of this malady, without regard to social distinction. We readily see the injustice of this accusation, when we remember that not every cholera case comes under the care of the physician, and many who do come only in a collapsed or moribund state.

Often they have been supplied from the drug-store, which early, before a cholera case occurred, in anticipation of a money harvest, advertised by the press and over the counter their nostrums as unfailing remedies. These are not held responsible for the dead, due directly or indirectly to their prevention of the attendance of a qualified physician.

Our profession should be careful in publishing a treatment as successful, before being proved so by the recovery of a majority of the cases under its influence in the epidemic then raging. How unwise to rush into print and claim a specific after the treatment of two or three cases. It is only after a fair trial that a remedy can be entitled to the confidence of the profession. We should not forget the truism—"different people have different resistance."

The vital force in our organizations is more or less developed, and, as every physician knows, plays an important part in the good result of remedies. Frequently a physically frail-built patient, struggling under a dangerous malady, comes up from the brink of the grave; while another, well developed and robust, with the same malady and under similar treatment and surroundings, succumbs. The latter had not the tenacious hold on vitality of the former.

I have seen in cholera epidemics and at other times many unexpected recoveries. After setting aside my remedies, continuing only the careful feeding to sustain life, and with little hope, I have seen the vacillating, flickering flame rally. Success in these cases may add nothing to the physician's prestige, but they establish the fact that some patients *will not die*.

In the fifty years just past, when Europe has been threatened by a visitation of Asiatic cholera, the question of its contagiousness has repeated itself. This prevents the early and proper regulations by sanitary efforts for its prevention and control. State authorities lean toward the non-contagious theory, for quarantine paralyzes commercial traffic and money is lost. Now, setting aside hairsplitting theories, we dare not dispute that the disease is transportable. Another fact which prevents timely prevention, is that the first case is almost always declared by the attending physician and local authorities to be cholera-morbus, or at least it is denied to be Asiatic cholera. It is known that epidemics of all kinds vary their symptoms more or less from time to time. The main symptoms always remain, as red is always red, whether the color be a shade lighter or darker.

Symptoms.—The premonitory symptoms of Asiatic cholera are few, well marked, and more easily detected than those of measles, scarlatina, varioloid, variola, typhoid or typhus fever. They exist but a short time till the disease is perfectly developed. They begin with oppression in the temporal region, ringing in the ears with difficulty of hearing, a dull expression of the eyes, shivering sensations, oppression in the region of the heart and stomach and nausea. After these symptoms have lasted an indefinite time, more or less marked according to temperament and intensity of the poison, a rumbling, like

[1] "Mr. David Richard, in his late experiments on pigs, comes to the conclusion that the alvine discharges at certain stages of cholera contain a powerful poison whose chief function is to enfeeble and destroy the function of respiration—that the rapidity of its action excludes it from being an organism. He thinks it a chemical compound, probably an albuminoid. He thinks the evacuations easily disinfected, probably by permanganate of potash.

"Although the poison decomposes, it might by desiccation retain its power for some considerable time in clothes, etc., stained with choleraic discharges."—*Indian Medical Gazette*, April, 1884.

water rolling along the transverse colon, with or without pain in the gastric region, with oppression in the chest and a slight dyspnœa, sets in. These symptoms are greatly relieved by the first large watery motion mixed with the contents of the bowels. This relief is so great for a time, many are deceived, and defer calling medical aid till too late. From this time or earlier there is suppression of the secretion of the kidneys, and no urine will be discharged till recovery begins. The next symptom is a large, turbid, thin evacuation, called the rice-water discharge. In the height of the disease the discharges are as clear as well-water. There is no sign of bile in any of the evacuations after the first. It is retained in the gall-bladder and the ductus-hepaticus. No absorption of it seems to have taken place. Nearly all absorption has apparently ceased. I was called to see a farmer a mile and a half from town. The hired man was lying dead on the porch, while the farmer and his wife were in bed, in agony with cholera. Only one neighbor was present to assist. The wife was 28 and the husband 40 years of age. The disease had not so far advanced with the wife as the husband. While I administered medicine to the husband, I observed the wife go to the night vessel, by the help of the neighbor. This she did twice. Shortly after, as I sat by the bed attending to her, I looked into that porcelain vessel nearly full which she had just evacuated, and dropping a pin into it, could see it distinctly at the bottom. The primary symptoms before the rice-water discharges set in, last from one to twenty-four hours. During this time medical aid is most successful. Under the present stimulant-narcotic treatment, this is the only time when a cure can be reasonably expected.

Vomiting begins either with or before the first rice-water discharge. The first vomit consists of the mixed contents of the stomach, the next has in it some mucus, but both are free from bile. These are followed by clear fluid with the drinks swallowed. The oppression in the stomach and dyspnœa increase. Pain in the bowels, cramps in the arms and legs, restlessness, shrieks from the patient now begin or increase with copious vomiting and purging. The skin becomes dry and cold, the eyes red with a blue ring around them, and the pulse diminishes. After this has continued from one to six hours, sometimes longer, the vomiting and purging decrease in quantity and frequency. This is most distressing to witness. The patient is in painful agony and oppression. He springs up in bed only to fall back exhausted, repeating it again and again while the watery stools pass under him. He is tormented with thirst while he continues to call in a hoarse whisper for water. Such torment and suffering are seen in really no other disease.

Now the face takes on a blue leaden hue. The cramps of the extremities are not so severe. The skin becomes ice cold and covered with clammy sweat. The skin of the hands, forearms, feet, and legs is cold and of a dark blue color and wrinkled by shrinking, looking like hands after a whole day's washing. This is the height of the stage of true collapse.

He is indifferent to all his surroundings, even to his own family. I have never seen a patient after the rice-water discharges appear make his will. He dies in this condition perfectly conscious, but sometimes falls into coma and passes away. Sometimes after remaining twenty or twenty-four hours in this state the pulse fills again, the breathing becomes normal but feeble, the hands fill up, the temperature increases, the circulation returns, the whole body gets warm, the red hue of the skin appears, and in two or three days you see the patient out of bed without any lesion to trouble afterwards. In this state of coma many are buried by the panic-stricken people who are not dead. Let me give a case in proof. A patient in the beginning of collapse was buried against my urgent advice. I was called at 8 oclock A. M., to a young mulatto, 17 years of age, who, with her husband, were servants in a merchant's family. Both had cholera and died. I found her in the beginning of collapse, having had the second evacuation. At noon I passed a coffin one-fourth of a mile from the house and was told the negro woman was dead. I drove directly to the house and entered the room where the woman lay. The entirely nude body was covered with a sheet. It lay like a marble statue, face chest, bowels, arms, and legs full, without any shrinking, the skin having the mellow yellow color so characteristic of a young mulatto. It was of no avail that I urged delay in her burial, before 2 o'clock she was under the ground. How many such burials take place among a panic-stricken people.[1] They are hard to prevent in this country where permits are only needed in the larger cities. Do many physicians in the cities who grant certificates see the subject?

And now when we collect all the symptoms into one picture and add our own experience to form a diagnosis we come to the conclusion that we have here a shock of the nervous system—prominently the sympathetic. But when we try to explain how this chemical separation and discharge of fluid takes place only by the mucous membrane of the intestines we work in the metaphysician's region of the immaterial and unfathomable law of nature.

Before we speak of treatment, a few words on prevention.

Complete and daily disinfection of all water-closets, refuse barrels and sewers. Immediate removal of all excremental matter after being disinfected with sulphate of iron or carbolic acid, and covered with pulverized animal charcoal or dry earth. The rooms should be purified by the burning of crude sulphur, but in such small quantities that the diluted sulphuric acid will not excite coughing. Exert a moral influence. Abstain from beer, from large draughts of water, ice water, lemonade and ice cream. In cholera epidemics the greatest mortality is on Mondays,

[1] Previous to the year 1870 in the immediate vicinity of Bordeaux, France, several workmen in excavating in a churchyard, came upon a belt of ground apparently impregnated with some antiseptic material. All the bodies in the belt, to the number of about 200, were found to be almost as perfect as when buried. I found when visiting the crypt of the cathedral where shown. One was found lying on its side, the legs drawn up nearly to a level with the abdomen, while the arms were in such a position as to indicate that both these and the legs had been used in a desperate but futile effort to push out the side of the coffin, whilst the look of horror remaining on the face was simply indescribable. In the other case the body was found lying on its face, the arms extended above the head, as if attempting to push out the top of the coffin.—*Lancet*, June 10, 1884.

from the free use of these things on the day preceding. I have seen many young girls and others' in full health on Sunday morning, after spending the day in the use of these luxuries and dissipation, die with the cholera on Monday. The diet should not be changed, unless it be to use fruit moderately. Cabbage and green vegetables should be avoided. Those used to liquor should use it moderately, and those who are abstainers abstain. Brandy is only to be used as a medicine. I have seen clergymen, during these epidemics, under the influence of liquor on the streets. Keep from exposure to cold, wearing woolen next the feet and body. Watch yourself and household for the first appearance of illness. As a prophylactic and pleasant drink, use largely diluted sulphuric acid, sweetened if desired, and flavored with orange. Let this be kept in public places and at home as a summer drink. If attacked by cholera when from home, take an aromatic astringent drink, and call your physician.

But one of the most important prophylactic measures, in town or city, would be for the board of health to appoint a committee of sanitary composed of philanthropic citizens. Let them have authority to examine every house and report to the board every foul place. This committee should also freely distribute printed instructions among the people.

Treatment.—The most important thing for the physician to consider when called to the bedside of of a patient with this short-lasting disease, is, How can I change the abnormal and rapid secretion of the mucous membrane of the intestines and rally the sinking patient? Such remedies as will in the commencement of the characteristic rice-water evacuations fulfill the indications and promise to reduce the mortality. But a drug which, in this disease as in all others, will cure every case will never be found. Drugs are used for two purposes in the treatment of cholera—to disinfect and for administration. For the latter purpose the majority of physicians use the stimulant, narcotic and astringent remedies. Only a small number *experiment* with other drugs. Still, there are some who obstinately hold on to the old idea that calomel is a universal remedy for all ills. They ignore the teaching of all post-mortem reports since 1817 as to its failure and positive harm.

It is not true that if it does no good it will do no harm. When introduced into a living organism, if dissolved, it must impoverish the little remaining blood, and if not dissolved, it accumulates in the stomach and intestines and acts as a foreign body.[1] In this rapid disease, with its low vitality, such a condition hinders the feeble reaction and prevents the use of other remedies. It requires a stretch of imagination to believe, as Dr. Ayre says, that two grains of calomel placed on the tongue every five or ten minutes, and washed down with an effervescing draught, will do any good. But calomel can be of service and do good when other drugs may do harm, when reaction from collapse appears. Then, given in small doses every hour or two for a few times, it will help to restore the suspended mucous secretion.

Opium, when given to control diarrhœa or nausea and vomiting, in large repeated doses, has proved injurious. It paralyzes the vital force and increases mortality. Laudanum in 5 to 10 drop doses hourly, is 60 to 120 drops in twelve hours. After the first dose copious vomiting sets in, soon becoming less, while the pulse gets fuller, but remains small and weak. The head is hot, the eye glassy, the coating on the tongue thicker, the sensorium dull, while the extremities remain ice cold. Stupor and diarrhœa increase, and life ends in coma. But coma should not be the finale of cholera. The mind remains nearly always unimpaired where no narcotic is given. But in the premonitory symptoms opium can be judiciously used, and also as a narcotic and stimulant on the first indication of collapse. Still, opium should not be long continued, for its cumulative effect is to produce stupor, ending in torpor and death. Hypodermic injection of morphine is the same in its effect as opium, only more rapid and uncontrollable. It lulls the pain, but the disease in the majority of cases in which it is given runs its course, like a smothered fire. A correspondent in your journal says "morphia is the king of nervous remedies," and recommends it in cholera. To this I strongly object. For the last ten years I have seen it freely and often injudiciously used by our young practitioners. Placing morphine on the bottom of the cork of a drachm vial of morphine and calling it a sixth of a grain, and in other careless measurements, then injecting, often brings the patient to the danger line, and in two cases under my observation beyond it. No. 1, a young woman 22 years of age, in which the morphine injection was given in the evening to relieve a headache, which of course it did. The next morning her husband found her dead by his side. No. 2, a lady in the prime of life and perfect health, surrounded with comfort. After a hearty breakfast she suffered from a slight pain in the stomach—indigestion. I called, and gave ipecacuanha and two $\frac{1}{6}$-grain morphine powders; one of these to be given at 2 o'clock, and the other five hours after, if not relieved. In the evening about 10 o'clock a fashionable doctor was called to a patient in the same house. He offered to relieve her pain immediately, and administered a morphine injection. The next morning I was called at 7, and found her dying. Therefore I cannot indorse that morphine is king. It is only uttering again the errors of the fathers of our art of fifty years ago. They believed that calomel in fever and venisection in inflammatory diseases were king and queen of all ills. And what misery I have seen follow these!

Dr. F. P. McFarland gives the result of thirteen years' experience in India (Dublin *Jour. of M. S.*), in which he says more cases have recovered under the salt treatment than under any other.

There are two ways of using the salt. The first mixture, which he considers the best, is: Common salt, dr. 2; bicarbonate soda, gr. 36; chlorate pot-

[1] Dr. Joseph Heine, military surgeon in the temporary hospitals of Papanz, Poland, in 1831, made a section of the body of a soldier who had died of cholera after two days' treatment with sulphate of zinc. In the stomach he found several tablespoonfuls of a whitish-grey fluid. At the bottom of the stomach he was able to detach without tearing half of a white membrane the width of a hand. It was a croupous membrane of from 1 to 1½ lines in thickness, and on it there were not missing the blood dots or islets.

assi, gr. 10; and water, 8 ounces; to be taken every half hour or hour. The second is half an ounce of common salt in a pint of water, every half hour or hour. (*Jour. A. M. A.*, Vol. 2, page 295, 1884.)

The permanganate is a poisonous disinfectant, claimed to destroy poisonous emanations. It is recommended in diarrhœa, scarlatina, diphtheria, etc., and lately in East India, in ¼ to ½-grain doses, in water, several times a day. As before stated, this has been experimented with in a few cases, and I do not recommend it.

Sulphuric acid is used only as a drink in the manner already described.

Boracic acid is highly commended by W. I. Butler, of the Indian service, Madras. He said, as the pure acid was not procurable, the biborate of soda was at first used, and 70 to 75 per cent. recovered. Afterward, when the pure acid was used, all recovered. It was used in ten-grain doses, combined with biborate or bicarbonate of soda. Salicylic acid in 10-grain doses, combined with 5 grains of bicarbonate of soda, and 5 grains of carbonate of ammonia, in an ounce of water, is recommended.

Capsicum was early, and is still, used. I have given it—capsicum, grains 3; bicarbonate soda, 20 grains; water, 4 ounces; give a tablespoon every half hour, or hour, as an auxiliary to other medicines, to allay vomiting.

In the epidemic of 1866, Dr. Spinzig, St. Louis City Hospital physician, says, in report of treatment, August 27, when the disease was at its height, nine were given tincture cantharides, 5 to 20 drops every hour or two; none died. September 12—Sixteen were so treated; twelve recovered and four died. October 10, when the disease was on the decline, twenty-two were treated and nineteen recovered. This tincture was used in Europe in 1831, in very small doses, without any good result.

Liebig soup was extolled by some physicians as a cure. Collodion treatment: An external application of collodion, 6 drachms; castor oil, 1 drachm; M., and smear the abdomen, covering with cotton-wool. A French physician used and recommended this as a cure for diarrhœa and light cholera. I mention it as a curiosity. (*L' Union Medicale.*)

Castor oil is very warmly commended by some English physicians. It is used in moderate doses when the power of elimination is active. Seldom more than two or three doses are said to be necessary. It is said to be very efficacious in diarrhœa, before the cholera symptoms appear.

Tartar emetic and ipecacuanha are reported as successful in many cases. But how many of the recoveries, after using these last-named remedies, are the result of, and due to, the *vis medicatrix naturæ*? Drenching the bowels with water by the mouth is reported as successful, and as an improvement, using the hypodermic syringe to inject medicated water into the subcutaneous areolar tissue. But to more quickly reach the center of the supposed cause of cholera, infiltration, by means of an aspirator, of the peritoneal cavity with artificial serum has not been tried. An effort is made to replace the rapidly wasted fluids. This I only allude to here as a novel therapeutic addition to the literature or the art and science of medicine.

Camphor and chloroform, which are used separately by many physicians as favorite remedies, I have referred to last, because *combined* they have proved valuable remedies to me, not only in Asiatic cholera, but also in many other diseases where a sedative stimulant, and may I say also astringent remedy, were indicated. I have received more satisfaction in a long practice from its use than any medicine of its class. I present it with much confidence; not claiming it as an arcanum.

Knowing how unsatisfactory was the treatment in Europe during the epidemic of 1831, I tried in 1848 to procure the best information possible in this Mississippi valley. In the course of my research I found in the January number of 1848 (when the Asiatic cholera appeared to an alarming extent and of a malignant type in Europe) of the *American Journal of Medical Science*, vol. 1, page 170, the following article: "Champhor and chloroform mixture by F. and H. Smith, M. J., and Retrospect of M. S., Nov., 1848. There is great difficulty or rather an utter impossibility of administering camphor in a state of solution in doses of sufficient potency in some cases. The form of pills, the only mode of giving large doses of the medicine is objectionable in many cases and in others altogether inadmissible. The camphor, being merely in a state of mechanical division, on being set free in the stomach, from its extreme lightness quietly separates and floats about, thus producing in many cases *much local irritation* in that organ, instead of soothing or arousing the general system.

"Messrs. T. & H. Smith, chemists of Edinburgh, give a formula for exhibiting camphor in doses of almost any amount of strength—certainly as large as any case can require—and that in perfect solution, thereby allowing of a nice adaptation of the dose to the circumstances of each case. The formula is as follows: Three drachms of solid camphor are dissolved in a fluid drachm of chloroform. This is, perhaps, one of the most remarkable cases of solution the whole range of chemistry presents to us. The solution is most rapid and complete and the bulk of the liquid is now increased from one to fully four liquid drachms. This solution rubbed up with the yelk of one fresh egg may be formed into an extremely elegant emulsion by the addition of water without the slightest separation of camphor or chloroform; in fact no separation of any kind takes place. If to the proportions given above as much water be added as to make a four-ounce mixture, each teaspoonful of the mixture when formed will contain about five and a half grains of camphor and about two minims of chloroform. This mixture can be administered in any ordinary vehicle, such as water, without any separation; indeed the mixture is readily and completely effected, as cream with tea or coffee."

This struck me favorably on account of the perfect chemical solution of the camphor in chloroform, a pleasant stimulant and a gentle astringent of two sedatives of great volatilization. I had found that for which I searched to replace the strong astringents,

tannin, gallic-acid, ammonium, pepper, brandy, alcohol, and that powerful one, lead.

When cholera reached us in 1849, I administered this camphor mixture in the premonitory stage in all cases and in the beginning of collapse. It relieved the oppression in the gastric region, the flatulence, nausea, vomiting and diarrhœa. I prescribed every hour a teaspoonful with two drops of laudanum so long as the premonitory symptoms lasted, and afterward, if no collapse, I gave it every two hours with one drop of laudanum, for a short time. If collapse set in I gave the mixture every hour without the laudanum, but added instead every half hour or hour a teaspoonful of the following:

℞ Capsicum powder.....gr. iii.
Bicarbonate of soda.....℥ii.
Water.....℥iv.

But if this failed I used instead of it, tinc. cantharides, 10 drops every half hour. In making the mixture of camphor I used 2 drachms of chloroform instead of 1, I never united the laudanum with the mixture, but dropped it into the teaspoonful of the mixture, so that it could be used without the laudanum when needed.

During the past thirty-five years I have used this mixture without laudanum in almost all cases of diarrhœa—except feculent—in which I give it after the action of an aperient. I use it in small doses with other medicines in diarrhœa of children, and use it in all diseases where camphor is indicated. Of all the mixtures in which no alcohol is used it remains most free from ferment, does not separate and lasts for years if kept from frost.

But we cannot depend upon drugs alone for success. Drink, food and external appliations play a very important part in the treatment if judiciously used. Especially is this true regarding the temperature and quality of the water used as drink.

It always seemed strange to me that ice should be recommended—pieces in the mouth and ice water to drink and alternating hot medicines with pieces of ice in Asiatic cholera.

Cold water cannot produce reaction, invigoration or warmth to the parts to which it is applied, when the heat is under the normal and the vitality at the lowest ebb, as in cholera. Ice satisfies thirst only for a very short time. At first it creates a burning sensation, pleasant to the drinker, but when it is melted the burning sensation is gone and the desire for more is craving. Cold or ice water can only be used when the temperature of the body is above the normal and the vitality must not be below its normal stage. It is contra-indicated when chilliness prevails. When ice water is introduced into the torpid stomach, it must destroy that small spark of vitality left. About the same is true of warm water. It never produces a sensation of warmth; but diminishes it and relaxes where the heat is under the natural standard. Instead of being a stimulant it is a nauseant. I have long held that warm water encourages vomiting, while hot water allays and stops it. Hot water is a decided stimulant, increasing the circulation; as seen in gynæcology a remarkable astringent. I use it and recommend its use in Asiatic cholera. At first I give it freely between the medicines, in doses of a teaspoonful or dessert spoonful of clear hot water, free from any smell, so as not to be offensive. As the sickness advances I give it in tablespoonful doses. It is a decided sedative to the stomach, acting far more rapidly than narcotics. At first the patient may refuse it and desire cold or ice water, but soon he realizes the good effect of the hot water and asks for it. In the collapse I give between the medicines, every half hour, a teaspoonful of the yelk of a fresh egg with milk. Leibig or beef soup in four ounces, of which I mix the yolk of a fresh egg and some brandy and hot water, and egg-nog I also use. When reaction sets in I increase the quantity. Now I also administer, every two hours, two grains of calomel combined with bicarbonate of soda. Warm baths can hardly be used in private practice. The undressing and dressing of the patient, heating the water in such quantities, procuring a bath-tub, and lifting the patient in and out with so little help make this a very difficult proceedure.

I always order calico wrung out of hot water to be wrapped around the extremities and covered over the bowels, and this repeated often, that they keep hot. Bottles filled with hot water placed around the body and between the limbs are a good appliance. When none of these can be had, I have learned from the old ladies that boiled ears of corn wrapped in domestic are as good and retain heat longer than the bottles. In all this treatment the patient must lie in a horizontal position and keep as quiet as possible, speaking only encouraging words. Cholera seldom leaves any lesion, but sometimes the patient goes into a secondary fever. Still, this is so rare that the treatment is best left to the judgment of the attending physician. As the judge said in his final charge to the jury: "If you think this, you must do that, but if you think that, you must do this." There is one fact to be mentioned of some importance. A month or six weeks after the cholera disappeared, our section of the country was nearly free from febrile diseases. After that, bilious intermittents appeared, when, if as usual a cathartic was given, it would produce a copious watery evacuation with bile. This prostrated the patient. In about twelve to twenty hours another of the same character would be dejected, typhoid symptoms would set in, ending in coma and death, generally in four days. I have seen in the same season several puerperal-fever cases, which ran a similar course. It seemed as though a type of cholera still remained.

November 4th, 1884.

METHODS OF TREATMENT OF RESISTANT CLUB FOOT.

BY E. H. BRADFORD, M.D., BOSTON, MASS.

Read in the Section of Surgery and Anatomy of American Medical Association, May, 1884.

Certain cases of neglected club foot are occasionally met of such an obstinate character as to resist ordinary treatment by tenotomy and mechanical appli-

ances or to demand constant attention for a long time before a satisfactory result is gained. This has given rise to bolder operative interference than has before been thought justifiable. The following tables contain all the cases of tarsotomy which the writer has been able to collect:

TABLE OF OPERATIONS ON THE TARSUS FOR THE RELIEF OF RESISTANT CLUB FOOT.—REMOVAL OF THE CUBOID BONE.

NO. OF CASE.	OPERATOR.	PATIENT'S AGE.	DEFORMITY.	RESULT AFTER OPERATION.	ULTIMATE RESULT.	REFERENCE.
1	Solly	20	Double.	Recovery	Some improvement	Lancet. 1857. I. p. 478, also Adams Club Foot.
2	Davy	15	Double	Recovery	Good	Brit. Med. 1876. I. p. 256.
3	Davy	9	Double	Recovery	Good	Brit. Med. 1876. I. p. 256.
4	Davy	*14	Single	Recovery	Fair	Brit. Med. 1876. I. p. 256.
5	Stephen Smith	Adult	Single	Recovery	Poor. Subsequent amputation.	New York Med. Record. 1879. V. xv. No. 21, p. 491.
6	Poinsot	12	Single	Recovery	Good	Bulletin et Memorie Soc. Chirurgie. VI. 1880. p. 455.

CASES OF REMOVAL OF THE ASTRAGALUS AND TIBIOTARSAL RESECTION.

NO. OF CASE.	OPERATOR.	PATIENT'S AGE.	DEFORMITY.	RESULT AFTER OPERATION.	ULTIMATE RESULT.	REFERENCE.
1	Ried	43	Single	Recovery	Good	Deutshe Zeitsch f. Chir. 1880. XIII. 114.
2	Ried	44	Single	Recovery	Good	Deutshe Zeitsch f. Chir. 1880. XIII. 114.
3	Ried	4	Single	Recovery	Good	Deutshe Zeitsch f. Chir. 1880. XIII. 114.
4	Ried	14	Single	Recovery	Fair	Deutshe Zeitsch f. Chir, 1880. XIII. 114.
5	Volkmann	Not given	Single	Recovery	Good	Centr. f. Chir. 1880. No. 13, p. 197.
7	Lund	7	Double	Recovery	Good	Lancet. 1878. I. 189.
8	Lund	29	Single	Recovery	Not good	V. Arch. Gende Med. 1882. I. p. 466.
9	Verbelri	5	Single	Recovery	Good	Central f. Chir. No. 24. 1877.
10	Mason	20	Double	Recovery	Amputation. Death	N Y. Med. Rec., July 14, 1877, p. 446.
11	Lesser	6½	Single	Recovery	Good	Centralbl. f. Chir. 1879. No. 31. 497.
12	Boeckel	?	?	Recovery	Good	Gaz. Med de Strasbourg. 1883. Nos. 6 and 7.

RESECTION OF TARSUS.

NO. OF CASE.	OPERATOR.	AGE OF PATIENT.	DEFORMITY	RESULT OF OPERATION.	ULTIMATE RESULT.	REFERENCE.
1	Weber	15	Single	Death		Archives Gen. de Medicine. 1882. I. p. 583.
2	Davies Colley	12	Double	Recovery	Good	Brit. Med. J. 1876. II. 526.
3	Howse	?	?	Recovery	Good	Archives Gen. de Med. 1882. I. p. 584.
4	Wood	?	Double	Recovery	Good	Lancet. 1878. I. ? p. 800.
5	Davy	6	Single	Recovery	?	Lancet. 1878. I. 389.
6	Davy	12	Single	Recovery	?	Lancet. 1878. I. 389.
7	Davy	16 months	Single	Recovery	Good	Lancet. 1878. I. 389.
8	Davy	?	Single	Death. Septicemia. Antiseptics not used.		Lancet. 1878. I. 389.
9	Mensel	9 years	Double	Recovery	Good after a second operation	Centralbl. f. Chir. IV. 1877; and VI. 1879.
10	Schede	?	?	Recovery	Good after a second operation	Centralbl. f. Chirurgie. VI. 1879.
11		?	?	Recovery		Centralbl. f. Chirurgie. VI. 1879.
12		?	?	Recovery		
13	Hueter	Adult	Single	Recovery	Good	Klinik der Gelenkkrankheit; 2d part. p. 145. Note.
14	Ried	5	Single	Recovery	Good	Archives Gen. de Med. 1882. p. 586.
15	West	23	Single	Recovery	Good	Brit. Med. 1878. II. 280.
16	Barwell	21	Single	Recovery	Good	Med. Times. 1878. II. Dec. 28.
17	Bryant	19	Single	Recovery	Good	Lancet. 1876. II. 772.
18	Muralt	7	Single	Recovery	Good	Centralblatt f. Chir. 1879. VI. p. 896.
19	Rupprecht	4½	Single	Recovery	Good	Centralblatt f. Chir. 1880. VII. p. 106.
20	Rupprecht	9	Double	Recovery	Good	Centralblatt f. Chir. 1880. VII. p. 106.
21	Rupprecht	4	Double	Recovery	Good	Centralblatt f. Chir. 1880. VII. p. 106.
22	König	12	Double	Recovery	Good	Centralblatt f. Chir. 1880. VII. p. 193.
23	König	13	Single	Death. Ulcerative Endocarditis		
24	König	19	Single	Recovery	Good	Centralblatt f. Chir. 1880. VII. p. 193.
25	Mensel	10	Double	Recovery	Good	Centralblatt f. Chir. 1880. VII. p. 193.
26	Leissl	27	Single	Recovery	Good	Centralblatt f. Chir. 1880. VII. p. 167.
27	Davy	4	Single	Recovery	Good	Wiener Med. Presse. 1881. No. 2. 357.
28	Davy	10	Single	Recovery	Good	Br. Med. Journal. 1881. II. p. 698.
29	Davy	10	Single	Recovery	Good	Br. Med. Journal. 1881. II. p. 698.
30	Davy	11	Single	Recovery	Good	Br. Med. Journal. 1881. II. p. 698.
31	Davy mentions having performed 6 other operations with success					Br. Med. Journal. 1881. II. p. 1016.
37	Bennett	47	Single	Recovery	Good	Br. Med. Journal. 1881. II. p. 1016.
38	Porter	?	?	Recovery	Good	Boston M. & S. Jour. Sept 8, 1881. p. 241.
39	Bradford	11	Single	Recovery	Good	Boston M. & S. Jour. Sept. 8, 1881. p. 241.
40	Bradford	13	Double	Recovery	Good	Boston M. & S. Jour. Sept. 8, 1881. p. 241.
41	Beauregard	15	Single	Recovery	Good	Bulletin de Soc de Chirurgie. 1882. VIII. p. 766.
42	Lucke	7 cases are reported treated by excision of the tarsus with success				Inaugural Address. Strasbourg. 1881.
48	Wagner					
49	Rupprecht mentions 14 other patients, besides those mentioned already, 23 operations in addition to the four mentioned, with success					Centralblatt f. Chirurgie. 1882. No. 31.
64	Kraske mentions three successful cases					Congress of German Surgeons. 1882.
66	Beauregard	9 years	Double	Recovery		Bulletin de Soc. de Chir, 1882. VIII. p. 766.
67	Beauregard	13 years	Single	Recovery	Good	Ibid.

The above table, compiled with additions from Chauvel's excellent article on the subject (*Archives Generales de Medecine*, 1882; p. 456), shows that the danger as to life from these operative procedures is not great. In 110 operations on 88 patients, 3 deaths are recorded. One of these is not fairly attributable to the operation (case 23), as at the autopsy evidence of ulcerative endocarditis existing before the operation, was found. The other deaths, from septicæmia and hospital gangrene, might possibly have been prevented if antiseptic precautions had been used (cases 8 and 1). It is, however, difficult to determine, accurately, as to the exact amount of correction of the deformity and ultimate benefit afforded by the operation, from the comparatively meager reports given in many cases. Two of the patients subsequently underwent amputation, showing that the result was not satisfactory; but a large majority of the cases were permanently benefited. In the writer's two cases (three operations) this was certainly the case, the patient having been heard from three years after operation. The improvement in the position of the foot in the first case was not as great as in the second, owing to improvement in the technique. In both, however, an ugly deformity was converted into one hardly noticeable, with perfectly useful feet; the patients, from walking on the dorsum of their feet, being made plantigrades.

The methods introduced may be grouped as follows:

1. Removal of the cuboid alone.
2. Removal of the astragalus alone.
3. Removal of the astragalus and cuboid and scaphoid.
4. Section of the neck of the astragalus.
5. Removal of the astragalus and the external malleolus.
6. Osteotomy of the lower end of the tibia and fibula.
7. Wedge-shape resection of the tarsus.

The results from the first method have not been altogether satisfactory, and the fourth may be said to be insufficient; and against the third and sixth it may be urged that too much mutilation of the foot is required.

Authorities differ in advocacy of the second and seventh methods.

Ried (*Deutsche Zeitsche f. Chir.*, 1880, v. iii, 114) states his preference for the removal of the astragalus over a wedge-shaped section of the tarsus, but admits that the matter is yet *sub judice*.

Rupprecht (*Centralblatt f. Chirurgie*, 31, 1882), speaking from experience in twenty-seven operations, is decidedly in favor of the former of these methods on clinical grounds; that in five of the nine cases of resection of the tarsus, a tendency to inversion of the front of the foot remained, while after the eighteen excisions of the tarsus he performed this was not the case, and also because the astragalus, the bone whose distortion is chiefly instrumental in causing the deformity, is not thoroughly rectified by wedge-shaped section of the tarsus. He admits, however, that in certain cases, especially in those above 13 years of age, extirpation of the astragalus alone is not sufficient, but that the scaphoid and several of the cuneiform bones must also be removed. Sometimes a portion of the external condyle should also be removed. In severe cases in the ages from 4 to 12 the removal of the astragalus alone is sufficient.

An analysis of the cases collected by Chauvel, however, appears to show that the removal of the astragalus alone, or of the cuboid alone, does not give, as a rule, completely satisfactory results. Tibiotarsal resection, *i. e.*, section of the tibia, and a portion of the astragalus, gives complete correction, but an anchylosis and a stiff ankle joint follows.

Cuneiform resection of the tarsus is the most popular of these operative methods and has undoubtedly given remarkably good results; in certain cases, however, the ultimate benefit was not as great as was anticipated.

Whichever of these operative procedures is adopted, it must be admitted that a mutilation of the foot is unavoidable, and the question naturally arises whether too great importance has not been placed by these surgeons upon the alteration in the facets of the astragulus and too little upon the connective tissue and ligaments which hold the deformed tarsus firmly in its distortion. Granting that in certain adult cases tarsotomy may be required, it is certainly asking too much of the surgical world to believe that removal of the astragalus is advisable in a child of four years of age, for the clinical facts shown by the earlier teachers, and notably, Little, Adams, Brodhurst, and in this country by Buckminster Brown, give indisputable evidence that obstinate talipes equino varus is in a very large majority of cases amenable to treatment, and that the deformity is eminently a curable one by simpler means than tarsotomy. Even if the astragalus is abnormal in shape and the articular facets are not on the proper surfaces, it has been abundantly demonstrated that if the tissues are sufficiently stretched or divided on the contracted side of the foot, the foot put in a normal position and kept so a sufficient length of time, a cure will follow. The chief difficulty has been in obstinate cases to stretch the contracted tissue on the concave side of the distortion. In the three operations for cuneiform resection of the tarsus which the writer performed, it was apparent that unless an enormous wedge was removed from the outer and upper surface of the foot, stretching to a greater or less extent of the ligaments and connective tissue on the inner and plantar surface was necessary to bring the foot into an over-corrected normal position. The reports of the ultimate results of cases of tarsotomy or removal of the astragalus seem to confirm the opinion that these tissues are very important in producing club foot. Acting on this belief, Dr. Phelphs, of Chateaugay, has by a direct open incision on the inner and plantar surface corrected a severe case, and to forcibly stretch these tissues without division, Dr. Thomas Morton, of Philadelphia (Surgical Reports Pennsylvania Hospital), mentions the use of an appliance which he terms "the club-foot stretcher." This is of use, but has the defect of relying for stretching upon straps, which are neces-

sarily liable to slip and give In order to avoid this and to give greater precision, an instrument has been devised by which the rectification is effected by means of screw pressure directly applied, as is the case in the osteoclast.

The apparatus consists—

(1.) Of a plate large enough for any foot.

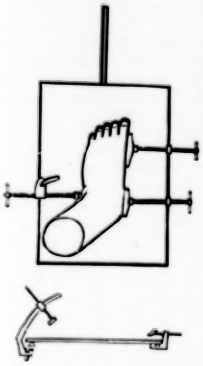

FIG. 1. Cross-section.

(2.) Of three steel buffers or padded plates which are attached at the ends to steel screw rods, playing through sockets with a female screw thread at the sides of the large plate. By turning the screws, which is done by the handles, the plates or buffers are pushed forward. They should be placed so as to press (1) upon the side of the first metatarsal; (2) on the side of the os calcis just beneath the inner malleolus; (3) on the outer side of the foot over the projecting head of the astragalus. The female screw, through which the male screw plays, is adjustable upon an arm curved so that pressure can be applied when it may be found necessary.

The sockets and arms are arranged so that they can be shifted and placed at any point along the side of the large plate, or can be shifted from side to side, so that the appliance can be used for either foot.

(3.) A straight rod, extended in the plane of the plate, gives increased power in raising the front of the foot. This is not always needed, and can be removed.

The method of operation is as follows: Tenotomy is performed, and the foot rectified as far as is possible by the hand; the foot is then placed in such a position upon the plate that screw force can be applied as desired. At times it will be found that fibrous tissues will be felt to tear, but ordinarily the process is a slow one, and the tissues are stretched under a constant pressure, and yield slowly. The skin on the concave side of the foot will be seen to become tense as if a tear was imminent, but in the writer's experience this has not occurred and, owing to the elasticity of the skin, is hardly a probable danger. The leg is to be steadied by an assistant, and the operator, turning the screws in the desired corrective, first attempts to change the varus into a valgus position without any attempt to correct the equinus deformity. If the foot curls at the toes under the pressure on the side of the metatarsus, an assistant should press down upon the head of the metatarsal. It will be found that the foot is firmly held to the plate when pressure is thoroughly applied; if then the plate is twisted out or up, the foot can be strained in the desired direction, the twist of the foot and the equinus position corrected. In the majority of the cases upon which I have operated in this way, the foot could be brought into an over corrected position after stretching (in some cases for some minutes). A certain amount is lost in fixing the foot after the operation. The fixation of the foot after operation is the most important step of all, as the ultimate success depends largely upon the position in which the foot is placed. Doubtless other, and perhaps better, methods may be devised, but I have been accustomed to use a plaster bandage carefully applied over the foot, this being held by the hands in a forcibly corrected position, the bandage reaching from the toes to above the knee, the limb being slightly flexed at the knee to prevent rotation of the plaster and subsequent inversion of the foot. The patient should be brought to the end of the table, an assistant should steady the knee, the foot should be grasped at the toes and ball of the foot (the fingers being on the planters and the thumb on the dorsal surface), by one hand pushing forcibly in the desired direction, counter pressure being exerted in the opposite direction by the other hand applied to the lower part of the leg. The ordinary plaster roller bandage should be applied, avoiding the hands as they hold the foot, the latter exerting pressure until the plaster is sufficiently firm as not to yield when pressure is relaxed; subsequent turns of the plaster bandages can be applied to cover the gaps remaining after releasing the hold upon the foot. A good deal of manual force is frequently required to hold the foot, and it is essential that the bandages should harden quickly, five minutes being ordinarily sufficient for this. It is advisable to cut the bandage before it becomes thoroughly hard along the dorsum of the foot, cutting through the thickness of the plaster an oblong piece from the toes to the lower part of the leg, and nearly the width of the foot, so that if it is desirable to inspect the foot at any time, it may be done without destroying the bandage.

If cut at the proper time, while the bandage is still firm enough to hold the foot, but soft enough to cut, this lid of the plaster box can be loosened without breaking or destroying the bandage. If the foot or leg is protected by a layer of cotton batting, applied next the skin before the plaster bandages are put on, there is little danger of incising the skin when cutting the hardened plaster.

With care in avoiding wrinkles there is little serious trouble to be anticipated from sloughs, though if much strain is put upon the foot during the fixation, sloughs on the inner side of the ball of the great toe may appear after a few days. If these are troublesome, the appliance figured in the accompanying cut can be cised. This consists of a steel rod, bent so as to project some inches to the outer side and above the foot and along the leg, incorporated in a plaster bandage enclosing the leg and knee. A buckle should be put at the lower end of this rod, into which can be fastened a piece of webbing sewn at the other end to rubber adhesive plaster wound about the foot. If this causes chafing, its position on the foot can be shifted, and portions of the skin can be protected by sheet cotton. Should there be a tendency for the

whole bandage to slip down, adhesive plaster applied to the thigh or leg, as in extension for hip disease, with the end buckled to a buckle incorporated in the plaster bandage, will prevent this.

FIG. 2.

If it is desirable to apply a pull in other directions than that indicated in the accompanying cut, this can be done by fixing additional pieces of steel rod and applying straps to the foot in a similar way. Slight œdema of the foot may occur from the absence of pressure on the foot. This can be obviated by applying a cotton bandage to the foot. Patients may be expected to suffer considerable pain on the first night of the application of the plaster bandage. Ordinarily, this disappears in a day. If one foot only is operated upon, the patient can go about immediately on crutches. If both, locomotion is of course impossible.

In all cases complete correction cannot be effected at one sitting, and a second or a third are sometimes necessary, though this is decidedly exceptional. It is, however, important that complete correction should be brought about; that is that the whole of the sole (including the heel) should be flat on the floor when the patient stands with straight legs. In most cases the foot, when released after being fixed three or four weeks in the plaster-of-Paris bandage, will be found to be in the desired position if it has been properly held when the bandage is applied. All that is then to be worn is an ordinary walking shoe. Sometimes some constant tension is required for a few weeks. This can be applied in any of the usual ways, the operation having accomplished in a few moments the stretching which otherwise would have required months or been impossible. When this has been necessary in the writer's practice, the spur appliance, already figured, Fig. 2, worn for a few weeks has been sufficient in all but one case (to be mentioned later). A walking appliance is to be worn by the patient for six months until the muscles controlling the motions of the foot have gained their normal balance.

The oldest patient upon whom this method has been tried was 16 years of age, and subsequent experience will have to determine whether patients above this age can be treated in this way, for at this age and below it this procedure of forcible correction followed by complete fixation in a corrected position has manifest advantages over tarsotomy, in that the foot is not mutilated, and a less dangerous method is employed. In comparison with the usual practice of tenotomy, followed by gradual mechanical stretching, the new method can claim in the severer and resistant cases to save a great deal of time, as will be seen in the accompanying cases. And it is needless to add that mechanical stretching is much more effective than manual force applied for the same purpose.

CASES.

The following patients have been treated by means of mechanical forcible rectification and immediate fixation in the manner described above:

CASE 1. J. H., boy of 5 years of age, with double congenital equina varus of the most resistant type. The patient had been operated on when an infant, but insufficiently treated, with the result of a relapsed condition and two badly deformed feet. Some months were spent in an unsuccessful attempt to correct the feet without operation. The feet were then stretched mechanically, tenotomy having been performed, and fixed in plaster-of-paris bandages, which were worn for six weeks. The patient was then fitted with a pair of walking shoes, and discharged from treatment eight weeks after the operation, except that he was directed to report for observation from time to time. At the present time, two years after operation, the patient can, when standing on the heels, raise the front of the foot slightly from the floor. The motions and positions and outlines of the feet are normal, and the boy walks perfectly flat upon his sole. The walking shoe was discharged after being worn a year.

CASE 2. S. W., a boy of 5 years of age, with a similar history, except that the deformity was single. The foot was rectified in two months, and sent home wearing a walking shoe. As he lives at a distance, he has not been seen since, but a letter from his father, January, 1884, states that he walks perfectly, and that the foot has retained its corrected position.

August 10, 1882. October 4, 1882.

FIG. 3. FROM CASTS. FIG. 4.

CASE 3. A girl, 4 years of age; a similar case to the above, and the deformity corrected in the same way, and equally satisfactorily. A note from the parents, January, 1884, reports that the condition of the feet remains perfectly good.

CASE 4. S. McK., 8 years old, with a single congenital club foot of the firm type. Operation and treatment the same as in the other cases. Was discharged from the hospital after a stay of three months. The patient has only been seen twice in the year and a half since her discharge. At the end of that time the foot was found in a normal condition, the amount of motion at the ankle being more than in any of the other cases, and indicated in the accompanying tracing, taken on a piece of paper against the leg, the sole of the foot being kept perfectly flat upon the floor.

FIG. 5.

FIG. 6.
Drawn from cast, August, 1883.

FIG. 7.
From photograph, January 1, 1884.

FIG. 8.
From imprint of sole of foot, January 1, 1884.

CASE 5. E. S., 15 years old, with a single congenital club foot of the most resistant type. The patient was operated upon in the way described at one sitting. A plaster bandage was applied and worn 10 days; some sloughs appeared, and the spur appliance put on and worn 4 weeks. A walking-shoe was then applied, and the patient discharged from hospital treatment, using, however, crutches in walking on account of tenderness of foot. By a month, however, the crutches were discarded. At the present time, April, 1884, he serves as an errand boy and is able to walk about any ordinary distance, the foot remaining as indicated in the above cut. Since his discharge from the hospital the patient has been seen but six times in 6 months, and has taken care of his foot himself. He prefers to wear at present his "walking appliance," a light ankle support. The amount of dorsal flexion in this case is not greater than to right ankle with the leg.

CASE 6. M. McD., a boy 8 years old; single congenital club foot. Treated as the preceding one and with a similar result. Six months has elapsed since the operation and the foot is in normal position and usefulness, but the patient wears his appliance as a matter of precaution.

FIG. 9.
From photograph, September, 1883.

FIG. 10.
From photograph, January 1, 1884.

FIG. 11.
From photograph, January 1, 1884. Wearing appliance.

CASE 7. F. D., 5 years of age, with a double congenital deformity of resistant type. The right foot was corrected at one sitting, but three sittings were required to bring the left foot into the position indicated in the cut, which is not perfectly normal. The appliance is needed now (April, 1884) upon the right foot, but further traction upon the right or another operation is required.

CASE 8. M., girl 10 years of age, with a double congenital resistant club foot, which had twice undergone tenotomy with only partial success. Walking shoes were applied 3 weeks after operation, and at the present time, 6 weeks later, the patient walks about freely, with the feet in a normal position. Dorsal flexion at the ankle joint, however, is limited at a right angle with the leg.

THE APPLICATION OF THE LAW OF EVOLUTION IN THE STUDY OF PATHOLOGY.

BY A. S. V MANSFELDE, M.D., ASHLAND, NEB.

Introductory lecture, to the course on General Pathology and Histology in the Omaha Medical College, October 7, 1884.

If you join me in the belief that progress would be more rapid in the ratio in which thinkers and writers avoid ambiguous terms, you will readily find an excuse for this lengthy and I hope not altogether barren introduction to the chapter which we will now consider, or, better, a few pages of the same.

The application of the law of Evolution to the study of Pathology! For the sake of brevity, we will take it for granted that you are fully cognizant of the work of Stricker in Germany, Klein in England, of the host who have preceded them, and of the many scholars who are coworkers with them to day upon the field of Histology. You admit that they have established as a truism the assertion *omne vivum e cellulis*. You grant that, from the simple non-nucleated piece of protoplasm, the monera, as an effect of the forces above enumerated, in the course of time, a nucleated amœba arose with or without its enveloping membrane—forming, in the first place, the archetype of the plant, and, in the latter, the primeval ancestor of the animal. Now the mammal ovum is just such an amœba, which when joined with the male sexual element, lower by far then in its development, gives rise to a community of amœbæ cells equal in dignity (synamœbæ) by a simple division of the compound cell into equal parts. Soon, however, a division of labor ensues and the peripheral layer of cells throws out innumerable protoplasm arms—ciliæ—for the prehension of food and of movement,—the first attempt at polymorphismus, which afterward attains such high and complex development. These ciliated synamœbæ, or *planulata*,

NOTE.—We received this address soon after it was delivered, but our pages were then crowded with the papers that had been read in the Sections of the American Medical Association, and we felt compelled to place it on file for use at a more convenient season. The introductory part of the address is lengthy, embracing a general review of the doctrine of Evolution and comments on leading evolutionists, which we think less adapted to our pages than to the audience the author was addressing.

We therefore give only that part of the address relating directly to the application of the law of evolution to the study of Pathology.—ED.

very soon differentiate and form rudimentary alimentary canals, by saculation of their protoplasm bodies, retaining upon their surface, as well as in the cul de sac, the ciliæ—thus furnishing the progenitor of the host of *infusoria* still existing. Their descendants, more highly differentiated and perpetuated in the *turbellaria* of to day, possess the first rudiments of a nervous system, the first ciliated cylinder epithelium, in the more complex canalization of their interior, to which finally rudiments of sexual organs are added (hermaphrodism). Soon, however, we meet with a class of animals which, in their maturity, declare themselves of nearest kinship to those just spoken of, the ascidia, or sea-squirt, a sacklike (*himatega*) body, composed of cellulose (which by biological right belongs to its vegetable cousin only), with a nerve-mass called by courtesy the brain, and which serves to regulate the few acts that mark the placid and rooted existence of the race. Yet an examination of the larvæ of the ascidia reveals the wonder (it is true in its simplest form) of the first appearance of the spinal column and a spinal cord, the *noto chord* (?) forehadowing the coming race of vertebrates. This embryo form of the ascidian, bereft in its maturity of sense-organs and nervous cord, equals that of the little headless fish, the *amphioxus lanceolatus*, which retains its primitive spinal cord and transmits it to its offspring,—the only living link between the world of vertebrates and the worms of the earth. The embryo of the sea-squirt furnishes the timber for the bridge from the latter to the former, the mature lancelet maintains the structure for mutual intercourse of the two branches of the animal kingdom.

I have attempted to outline with as few words as possible the evolutional movement of protoplasm toward its highest development, the vertebrate animal. The paleontologist, the comparative anatomist, the embryologist, each one for himself asserts the correctness of this genealogical table for every one member of the animal kingdom. The paleontologist produces petrefactions which, dug from the bowels of the earth, appear as witnesses to the living truths contained in his "sermon of the stones." The comparative anatomist proclaims aloud the identity of the plan of structure for all living things, and the embryologist, tracing with untiring zeal the development of the ovum into the mature being of its kind, declares without hesitation the repetition in the several stages of foetal development of the types of all its kindred, lower in the scale of evolution all the way down to the lump of protoplasm. The dominion of the forces controlling and modeling organic forms is everywhere manifest. "Capricious intrusion of a supernatural agency never occurs." All observation and all investigation point with unerring precision to the irresistible conclusion that man himself must be enrolled in this grand chain, as the last link, forged by the same forces, which called into existence the first one, the primogenital monera.

Grant him, proud being which he is, the feeling that as the omega of evolution he crowns the magnificent structure, but admit, without deterioration of his place in nature, that the forces which have placed him there did achieve their triumph by a fight for the survival of the fittest, which admitted of no mercy and no preference. The survivors remained to testify to the beneficence and correctness of the laws of evolution, and the dead admit the eternal fitness of things.

The physiologist, in his investigations of the functions of the different organs of the body, which functions, when properly performed, lead him to regard the organism as healthy, has long since admitted that no proper standard exists by which he may adjudge the being healthy. He has accepted, and that arbitrarily and simply upon his convictions, that a performance of the functions of organs, which produce harmony among the organs themselves, and comfort and longevity to the possessor, proclaims that being healthy. The physiologist, therefore, has an ideal of health for each organ and tissue, the sum total of which furnishes him his ideal of a healthy animal. Any deviation from this arbitrary standard of a retrogressive character leads him to turn the subject over to the pathologist with the remark that the vitiated function implies a deteriority of the being as compared with its highest level of evolution. The pathologist accepts the charge, and at once sets out to search for changes in the body, guided by the manifestations of organic activity, as modified by the deteriority; *and these manifestations* are not those of the cells and tissues so changed, but of these and also those which remain healthy, or of the latter alone, but seldom, if ever, of the former exclusively. Thus, the heart of a healthy adult averages ten ounces in weight, its contractions in quantity and quality are normal, as indicated by the pulse and instruments for measurement. Its functions justify the conclusion that an harmonious relation exists between it and its sister organs, between the several tissues which compose it and the component parts, the cells, of each tissue itself. But suppose the nutrition of the heart is modified, which, as you know, can be accomplished in many ways, and as a legitimate result some of its muscle cells degenerate: fatty degeneration, the offspring of deteriorated nutrition, terminates the life and existence of a number of cells.

Now a feeble, easily compressed pulse manifests itself—the veins of the lower extremities are passively hyperæmic, the vessels of the brain anæmic; the former accompanied by slowly healing ulcers, the latter by headache and spells of fainting. Digestion is feeble, the mind sluggish in action; everything betokens lessened activity;—but is this the picture presented by the cells, which are fattily degenerated? They are dead, or dying, undergoing dissolution, perhaps submitting to purely mechanical changes of the chemical variety. I say "perhaps," because it may be otherwise—the free cells of the connective tissue of the heart, the white blood corpuscles and lymphoid cells may, as a recent author asserts, devour the cells which, weakened by starvation, no longer resist the greedy scavengers of the body. To the contrary, the whole picture; the symptomatology of fatty degeneration of the heart is exhibited by the muscle-cells still saved to the organ, and not yet touched by the causes which affected and destroyed the former. The cells still existing suffice to exhibit the functions

peculiar to the heart, yet upon a far lower level of evolution than was manifested by the organ prior to the degeneration of some of its colony of cells; and this lower level of evolution is also shared by all the organs which, by division of labor, stand in any relation to the heart; and this being true for every organ and every tissue of the body, the whole being is reduced to a lower level of evolution,—a level which in no wise furnishes the requisites of success in the fight for existence. The being thus lowered can lead the life of a human parasite for some time, but when compelled to join the multitude in the race for life, will soon finish his earthly career. But immaterial whether the course of life be rapid or slow, up to the ideal of the physiologist, or down to the limits which the pathologist declares compatible with existence, the structure of organs is the same in health and disease, the functions likewise are the same in *kind* as those of health. "Virchow considers disease processes as being healthy processes occurring at the *wrong time* or at the *wrong place*. * * * Disease processes are usually characterized by an *excess* or *deficiency*, as compared with the normal." We may therefore with propriety say "that disease is a deviation from health, and that this deviation consists, for the most part, in an excess or deficiency, or a perversion as to time and place."

Based upon these facts a recent author declares that remedies can only exert beneficial action when they *retard* or *hasten* function (Bartholow). We can heartily concur in this declaration, only adding that they may also influence function as to the *place* of occurrence.

It will thus be seen that the forces which have created man are in no wise concerned in the necrobiosis of the cells of his tissues—the death of his organs, or of himself. These forces come into play only when man strives to maintain his place in the world against his fellow, or against the odds presented by his environment. It is the relation of organ to organ and being to being which offers through the forces of evolution the means for survival or of extinction. Thus six-fingered ancestors are very apt to transmit to their descendants the same number of digits, opening thereby avenues for the invention of new instruments for six-fingered people, and in consequence means through which, in a fight for existence, the six-fingered man might supplant his five-fingered cousin. (Continuous transmission.)

Again, every physician knows that tubercle may remain latent in one generation to present all its horrors in the next. The lesson is plain: Cousins, whose parents succumbed to tubercles, though they themselves present no marked characteristics of the malady, should never marry, because their offspring, in all likelihood, will fall an easy pray to the dread disease. (Interrupted or latent transmission.)

The annals of obstetric practice furnish many data showing that fathers will transmit to their sons great fecundity. The same may be said of the mothers as influencing their daughters. Sterility obeys the same law for both sexes. The transmission of the capacity for plural births, both of males to males and females to females, belongs here. (Sexual transmission.)

We have also long since observed and put into everyday practice, purposely, in the breeding of our domestic animals, and instinctively in the intermarriage of human beings, the law by the workings of which peculiarities of both the parents are transmitted to the offspring — in man often to the detriment of his descendants; for an example, the intermarriage of deaf mutes, which causes the multiplication of these unfortunates to an alarming extent, sufficiently so to ask for legislation to prevent the marriage of such people. (Mixed or mutual sexual transmission.)

There are very few persons who, at the age of maturity, have not observed, or at least heard of, that dreaded disease, syphilis, acquired by the parent innocently or otherwise, of which it may truly be said, "it visits the children to the third and fourth generation. (Transmission of acquired characteristics.)

I have picked a few data from the experience of every physician to show that the laws of inheritance, as applied to man, may, under circumstances, influence his body, so that he is reduced to a lower level of evolution—a fit subject for the consideration of the pathologist, and, indeed, every thoughtful practitioner. I will not tire you with instances wherein the laws of adaptation play the role of reducing the capacity for existence, in like manner as the laws of transmission, for who has not observed the deadly influence of the malaria-breeding swamp as a residence; earth and air and water furnish conditions detrimental to health and life.

Can the physician, who fails to comprehend the value of a correct understanding of all these things, can he successfully combat disease; will he be a competent guide to health and happiness and threescore years and ten?

Students, if my effort has succeeded in making your head ache in the contemplation of what you ought to know as physicians, I have achieved success. Your teachers, myself included, are like the quack who asserted that he caused a change into rheumatism of all the diseases of which his patrons were possessed, because he was "death on rheumatism." *We hope to be death on the headaches produced by earnest inquiry!*

To you, my fellows in the profession, who by personal experience can appreciate the difficulties which must beset every student who attempts to study pathology, that part of the *science* of medicine which actually demands a thorough knowledge of biology in its widest sense, I appeal for corroboration of the assertion, that of all the branches of medicine which it has been your fortune to study, *none* has been so important to you, after you entered upon your professional career, as a thorough knowledge of pathology.

And to all of you who may not have found time to make careful inquiry of the influence which the theory of evolution possesses in the study and practice of medicine, and therefore have ignored or neglected it, I say: "Do not reject it! There is no thought of modern times that more magnifies the unutterable glory of Almighty God! Remember, I beseech you, what was said by one of old times:

'Ye men of Israel, take heed to yourselves, what ye intend to do. And now I say unto you, if this counsel be of men it will come to naught; but if it be of God ye cannot overthrow it, lest haply ye be found fighting against God.' Shall I continue the quotation?—'and to Him they all agreed.'"

JABORANDI AS A GALACTAGOGUE.

BY CHARLES WESLEY ROOK, M.D., QUINCY, ILL.

Gentlemen of the Adams County, Ill., Medical Society: 'Permit me to again direct your attention for a few moments to the medicinal agent, jaborandi. In an article read in your presence, February 11, 1884, and published in the St. Louis *Medical and Surgical Journal*, April, 1884, I gave some of my experience with jaborandi. In that paper was reported a case illustrating the galactagogue action of this agent.

The case reported is briefly this:

"Mrs. J. B. S., A primipara, confined January 1, 1884. Labor natural and comparatively easy; child, female, average size and well developed. As the breasts secreted no milk the child was artificially nourished for a few days. The mother and child progressed well until January 6, when I was hastily summoned, and found Mrs. S. suffering severely from headache, high fever, the surface of the body being hot and dry, pulse 130 per minute, and her breasts more tense and painful than they had yet been. Not having with me anything that would give her relief more quickly, or better meet the indications present than the extractum pilocarpi fluidum, she was given a ♏xij dose, with directions for its repetition every half hour, until free diaphoresis was induced. The desired effect followed the third dose.

Simultaneously with the appearance of the perspiration and the increased flow of saliva, the milk began flowing in a stream from the left breast, and so continued during the active stage of diaphoresis. On the following day, while the skin was yet moist from the jaborandi received the evening previous, milk began flowing from the right breast."

At no subsequent period has that little child lacked nourishment. In the discussion following the reading of my paper, with reference to the case just mentioned, this question was asked: "Don't you think that the milk was just about ready to be secreted, and that its secretion would have occurred soon without the use of jaborandi?" I answered: "That, as the secretion was not established before, and occurring in such abundance upon the exhibition of jaborandi, I naturally attributed this sudden increase of functional activity to the jaborandi."

Since then, I have administered jaborandi in four cases in which there was a deficiency of milk secreted, with the intention of increasing the supply, and with results, in each case, nearly as marked as in the one reported. It is to neither of these cases that I ask your attention, but to another case in which I claim strong circumstantial evidence, if not proof positive, concerning the galactagogue action of jaborandi.

Mrs. L. S. M., who is in feeble health, weighing less than 110 pounds, is thirty-eight years of age, been married fifteen years, and has given birth to nine children, five of whom are now living. Mrs. M. furnished an abundance of milk for the nourishment of her first child, but on account of a failure of her supply of milk, the cause of which I could not learn, she was not able to nurse either of her next seven children, which in lieu of their mother's breast received the bottle. Of the seven there yet remaineth three little pale-faced children as living witnesses to the preservative power of the bottle.

January 3, 1885, I was called to see Mrs. M. On my arrival I found the labor just completed. An average-sized male child was born, and being yet attached to the cord, the latter was severed, and the mother and child made as comfortable as possible. Inquiry concerning the condition of the breasts was made, when the history as above noted was elicited. On physical examination of the mammary glands, no signs of functional activity could be observed within them. Directions were accordingly given for the artificial feeding of the child. I then told Mrs. M. that if her milk did not appear within a few days I would give her some medicine which would cause the secretion of milk in abundance. Three days after confinement, the mammary glands yet remaining inactive, she was ordered ♏xxx doses of ext. jaborandi fl. every half hour, until free perspiration and salivation were produced. These effects were attained upon the exhibition of the fifth dose. The only noticeable effect upon the mammary glands was a slight enlargement. My patient, being very weak, was allowed an interval of one day in which to somewhat recover from the depressing effect of the free diaphoresis; then, as the condition of the mammary glands remained unchanged, she was given four ♏xxx doses at intervals of one-half hour, when the usual effect upon the skin and salivary glands was produced, while the following effect upon the mammary glands was noted: On this second exhibition of jaborandi the breasts rapidly filled, becoming tense and painful, but the pain and tension were soon relieved by the free flow of milk from each breast.

Here ended, for the present, any further necessity of artificially feeding the child.

Three weeks later I was called to see the child, and was informed that more milk was secreted than the child could nurse, the excess flowing freely from her breast. One week later I called in order to obtain a later report for my paper, and was surprised to find that the milk supply had failed and that the child was again nursing the bottle. I also learned that my patient had had, ever since the first appearance of the milk, a great fear that the supply would soon be exhausted, and wanting to do what she could to continue the secretion, had taken from the commencement, and without my advice, a daily ♏xxx dose of ext. jaborandi fl. The drug was ordered discontinued for two days, at which time, the mammary glands exhibiting no signs of their former activity, she was given three ♏xxx doses of ext. joborandi fl., at intervals of half an hour, which produced free perspiration, salivation, lachrymation, enuresis, and, as we had

hoped, a free lacteal discharge from each breast. The further use of the drug is forbidden. Nearly two weeks have elapsed since the last exhibition of ext. jaborandi fl., and my patient is secreting an abundance of milk. From my own experience with this medicinal agent, I am convinced that, in addition to the properties which make it a valuable diaphoretic, jaborandi has, first, a special stimulating effect upon the mammary secretions; second, the continued exhibition of the agent will be followed by functional exhaustion of the mammary glands; and third, a functionally exhausted mammary gland may, after an interval of rest, be again stimulated to activity by the proper exhibition of jaborandi.

Feb. 17th, 1885.

COMBINED RECTAL AND INTRA-UTERINE IRRIGATOR.

BY JNO. S. COLEMAN, M.D., AUGUSTA, GA.

In the *Medical Record* of New York for May 10, 1879, I presented to the medical profession the *Metro Clyst.* I now desire to call attention to a modification of this instrument which makes it available for the diseases of the rectum and surrounding pelvic structures. The instrument was skillfully constructed for me in April of last year by Messrs. Reynders & Co., of New York city. It is of hard rubber, and consists of a cylindrical frame or cage traversed by a central tube. This arrangement insures the easy exit of the injected fluid. Any ordinary syringe can, by means of rubber tubing, be attached to it. My preference in the use of hot water is for the syphon.

Thanks to the genius of Dr. T. A. Emmet, we all now appreciate the indispensable value of hot water in inflammation and as a hæmostatic. Though I have not yet had an opportunity of testing the merits of this instrument in pelvic cellulitis or peritonitis, I feel confident that we will find it one of our most efficient measures in combating these serious and obstinate forms of disease. So far as I am informed, Dr. J. R. Chadwick was the first to advocate the rectal use of hot water in the treatment of pelvic inflammations. (*Vide* his able and interesting paper in the Transactions of the American Gynæcological Society for 1880.) To me it promises much in acute prostatitis, rectitis, and internal hæmorrhoidal troubles.

I have had most gratifying success from its use in a case of puerperal endo-metritis, and in one of rectal ulcers.

APOMORPHINE IN ASTHMA.—Dr. Weber, of Darmstadt, has used apomorphine, in doses of one-twelfth of a grain three times a day, in chronic asthma, with success.—*Chi. Med. Journal.*

MEDICAL PROGRESS.

MATERIA MEDICA AND THERAPEUTICS.

PRACTICAL REMARKS ON THE USE OF ELECTRICITY IN MENTAL DISEASE.

Dr. A. DeWatteville writes, in *The Journal of Mental Science*, very encouragingly on the benefits of this treatment in mental disease, and considers the following as the chief indications to govern its use:

First—To promote the equilibrium of the cerebral innervation by acting directly on the nutrition of those centers which are deficient, functionally or organically, through molecular, vaso-motor or other influences. Experience shows we can do this, in some cases, by direct galvanization of the head and neck.

Second—To rouse up the peripheral and spinal innervation, and to indirectly restore their necessary equilibrium by supplying a deficiency in the different influxes upon which it partly depends. Here galvanization of the spine, and general faradisation (with the moist electrode or wire brush, according to the requirements of the case) will be of service.

Third—When the cerebral troubles are connected with some disturbance of the abdominal or pelvic viscera (visceral paræstheriæ, torpidity, and the like) to correct or mitigate the latter by the application of either current; or, better still, by galvano-faradisation. The value of electricity in visceral neurosis is very great, though hitherto unrecognized.

Fourth—To relieve certain symptoms as they arise according to the rules laid down in the usual treatises. It must not be forgotten, for instance, that general faradisation is a good tonic and excitant of general nutrition. In some cases, again, appropriate electrization acts as a promoter of sleep.

MEAT PREPARATIONS.—Dr. Stutzer, Director of the Imperial Agricultural Chemical Laboratory, Bonn, Rhenish Prussia, has been, for several years (*Midland Medical Miscellany*), testing articles of food introduced into Germany for the use of invalids and children. In the tests applied to meat preparations, he first established the percentage of organic ingredients, mineral ingredients (salt) and water; and secondly, he tried, as far as feasible, to decompose the organic principles in them; determining, for instance, what proportion of nitrogen must be credited to the easily digested albumen and to peptone; and thus estimated, in the usual way, by multiplying by 6.25 (assuming that the constituent principles contained, on an average, 16 per cent of nitrogen) the quantity of albumen and peptones. As certain of the preparations contained no albuminous principles (fibrine) that were soluble in water, with these it became necessary to ascertain, by means of an additional digesting experiment, how much of the albuminous principles can be digested. Next, he took into consideration the quantity of nitrogen present in the form of meat bases (such as creatine, camine, etc.), because these meat bases, together

with potash and phosphoric acid, possess a very high importance as relishing and stimulating means for the nervous system. The analysis of the mineral components went to the determination of phosphoric acid, potash and chlorine.

The most nourishing of the preparations analyzed proved to be Carnrick's beef peptonoids, as in this preparation there was in 100 parts (by weight) as much peptone and readily digestible albumen as there were in

178 parts (by weight) of Johnston's Fluid Beef;
285 parts (by weight) of Kemerich's Extract of Beef;
483 parts (by weight) of Murdock's Liquid Food;
765 parts (by weight) of Brand & Co's Essence of Beef;
784 parts (by weight) of Lawry & Moore's Fluid Meat;
898 parts (by weight) of Liebig's Extract of Beef;
902 parts (by weight) of Benzer's Peptonized Beef Jelly.

Carnrick's Beef Peptonoids present another distinguishing mark, as containing a not inconsiderable quantity of heat-producing and albumen-economizing elements, viz: 10.67 per cent fat and 10.02 per cent of soluble non-nitrogenized substances, such as dextrine and sugar. From this standpoint, Liebig's extract of meat, a favorite though it be, must be relegated to a subordinate rank; and it will thus be seen that, as for that matter, the makers themselves admit it is not an article of food, but a stimulant or appetizer, in consequence of its high percentage of meat bases (creatine, etc.), and phosphate of potash, in which respect it surpasses other preparations.

But he arrives at very different numerical ratios of proportion by comparing the percentages of nitrogen recurring in the form of meat bases in these preparations. He excludes from his table Carnirck's beef peptonoids, which contain but a slight proportion of these elements, and also Lawry & Moore's fluid meat, which latter contains, in addition to the meat bases, other unknown nitrogenized combinations, and therefore a comparison of the fluid meat with the other preparations would be inadmissible.

One hundred parts (by weight) of Liebig's extract of meat contain the same quantity of nitrogen in the form of meat bases; in

126 parts (by weight) of Kemmerich's Extract of Beef;
558 parts (by weight) of Johnston's Fluid Beef;
1,844 parts (by weight) of Benzer's Peptonoid Beef Jelly;
4,161 parts (by weight) of Murdock's Liquid Food;
5,053 parts (by weight) of Brand's Essence of Beef.

If a medical man desires to give an invalid or convalescent a preparation, by the use of which the formation of flesh and blood is to be promoted, and vigor infused into a patient, it will be his duty to examine into the proportions of easily digested albumen and peptones contained in any particular food preparation; and in this respect, as may be seen from the foregoing table, Carnrick's Beef Peptonoids stands first and foremost among the preparations examined.

MEDICINE.

CLINICAL OBSERVATIONS ON THE BLOOD OF THE INSANE.—Dr. S. Rutherford Macphail, in *The Journal of Mental Science*, gives this summary of an interesting and extended article:

1. While there is no evidence to show that anæmia in itself is a cause of insanity, yet an anæmic condition of the blood is undoubtedly in many cases intimately associated with mental disease.

2. The blood in the demented class of asylum patients is deficient in hæmoglobin and in hæmacytes, and the deterioration progresses as age advances.

3. The blood in patients known to be addicted to masturbation is deteriorated in a marked degree.

4. The blood is below the normal standard in general paralysis, and the deficiency is greater in the active and completely paralyzed stages of the disease than in the intervening periods of inactivity and quiescence.

5. While there is a deficiency in the quality of the blood in epileptics, the decrease is not so pronounced as in ordinary dements at the same age.

6. Prolonged and continuous doses of bromide of potassium do not cause deterioration in the quality of the blood.

7. Prolonged attacks of excitement have a deteriorating influence on the quantity of the blood.

8. The blood of the average number of patients on admission is considerably below the normal standard.

9. In patients who recover, the quality of their blood improves during residence in the asylum, and on discharge is not much below the normal standard.

10. There appears to be a close connection between gain in weight, improvement in the quality of the blood, and mental recovery.

11. While there is a definite improvement in the condition of the blood during mental convalescence in all cases, the improvement is both more pronounced and more rapid in those who have had tonic treatment.

12. The four tonics which, either alone or in combination, proved most efficacious in restoring the quality of the blood, as shown by these observations, may be classed in order of value thus: (*a*) iron, quinine and strychnia; (*b*) iron and quinine; (*c*) iron alone; (*d*) malt extract.

13. Arsenic proved of little value as a blood tonic in these cases, and the observations with quassia and cod-liver oil did not give satisfactory results.

14. The close connection which exists between improvement in the quality of the blood, increase in weight, and mental recovery; the converse which exists in cases of persistent and incurable dementia, and the marked improvement which is effected by certain remedial agents—show that this line of clinical research, more especially with reference to the curative treatment of the insane, should have more attention paid to it than has hitherto been the case.

THE THERAPEUTIC ACTION OF ACONITUM FEROX OR INDIAN ACONITE.—Dr. D. H. Cullimore brings

this drug to our notice in a paper read before the section of Pharmacology and Therapeutics of the British Medical Association, and reported in the *British Medical Journal*. The United States authorities, in common with the British and French, recognize only the aconitum napellus. The aconitum ferox sen vivosum is the most powerful and deadly of all the species of aconitia. A preparation of the root is much used in the Himalaya Mountains, where it is a native, to poison arrows. Dr. Cullimore details some 13 cases in which he has used it. As an external application he thinks it distinctly superior to aconite liniment. It is more diuretic, and less diaphoretic than the aconitum napellus; and probably, also, because it is less diaphoretic it is less antipyretic. As an anæsthetic, or dysæsthetic, in gouty and rheumatic conditions, it is superior to the aconitum napellus, while, as a vascular depressant, in small doses it is not so powerful. In minute doses it probably acts as a cardiac stimulant. In small doses, it stimulates the nervous system at all parts, and peripherally. In moderate doses it causes dysæstheria, perversion of sensation, as exemplified by the tingling and numbness; while, in larger doses, it is an anæsthetic, and a paralyzer of the nerves and other centers. Its first action on the nervous system, with its diaphoretic effect, will probably be found to explain its good effect in leprosy.

Its first effect is to produce heat, followed by lowering of the temperature and cold perspiration. Its antipyretic effect is due to a lowering of the central circulation, by which it lessens the production of heat, while, by its diaphoretic action, it facilitates its removal. When given in chronic-rheumatic conditions, it may be given till tingling is produced; whereas, in acute rheumatism, its action on the heart, though useful in moderate doses in the early stages, and in small throughout, must be carefully noted later on in this disease. In still larger doses, it causes nausea and vomiting, muscular tremors of the limbs, profuse cold sweats, disappearance of the painful peripheral sensations, dryness of the throat and fauces, ardent thirst, alternations of heat and cold, great irregularity of the heart's action and of respiration, feebleness, and even loss of muscular power, great and burning heat of the stomach, throat and intestines, attended with some muscular cramp, extending to nails, lips and heart. This, if life be prolonged, is followed by inflammation, convulsions, intoxication, delirium and death, which is sometimes attended with stupor, though at others the mind remains clear to the last.

With regard to the aconitum heterophyllum, it is known in India, under the name of atees, as a powerful tonic and aphrodisiae medicine. It possesses more of the poisonous, antipyretic, or anodyne properties of the other species of aconite. Sixty grains were given to a large dog without any injurious effect. As a tonic it is useful. As an aphrodisiac, Dr. Cullimore had had no personal experience, but the late king of Burmah, who kept seventy wives, and whose opinion, therefore, is deserving of respect, held it in high esteem.

ON THE NATURE OF SYMPATHETIC OPHTHALMIA.—Deutschmann, in an elaborate paper in *Grafe's Archiv.*, gives (Ed. MEDICAL JOURNAL), as the result of experiment and observation during the last two years, a large amount of very strong evidence in favor of the view held by Leber and others—that the transferrence of destructive inflammation from one eye to the other takes place along the optic nerves. By injecting the spores of staphylococcus pyogenes aureus into the vitreous chamber of one eye of a rabbit, on the second day there were marked hyperæmia of the disc of the other eye, and symptoms of meningitis. Microscopic post-mortem examination on the third day showed purulent infiltration of the optic nerve of the first eye, traced to the chiasm and down the nerve of the second eye to the papilla, the piamater of the base of the brain being inflamed. In all the situations involved in the infiltration, micro-organisms—the same as those injected—could be found. Weak solutions of these spores produced death at longer intervals, with no symptoms of meningitis. These experiments never induced a definite iritis, probably, it was thought, because the animal died before the inflammatory action reached the more anterior portions of the eye. The direction of the lymph current in the optic nerve is from the center toward the eye, and this fact is used to explain why meningitis does not occur unless the inflammation in the first eye be extremely intense. The micro-organisms, as they grow in the first eye, creep up the corresponding nerve until they reach the base of the brain, from whence they are carried by the lymph current down the opposite nerve, in that way reaching the other eye. Deutschmann made a microscopic examination of all the eyes at his disposal which had been removed on account of a sympathetic inflammation of the other eye, making use of the new methods of staining for the detection of micro-organisms. In all the eyes examined, with one exception, he found distinct micro-organisms, and these, too, were always to be found in the nerve. In four fresh cases the eye on removal was soaked with boiled distilled water, then opened and a small amount of pus, in the vitreous or elsewhere, put into blood serum, and treated according to Koch's method for micro-organisms. The micro-organism obtained was identical with the one before mentioned, and when injected into the vitreous of living rabbits produced the same symptoms; preparations also obtained from the blood of the animals (which as before were always found to die eventually of septicæmia) were found to be not less virulent in their action than the original preparations. One of the human eyes from which these cocci were obtained, was removed from the patient before any affection of the other eye had taken place, although there had been a possibility of sympathetic inflammation existing for four years. This fact is interesting, showing how long the micro-organisms may retain their dangerous properties—the fact of these remaining dormant so long being probably due to the mass of pus from which they were taken being more or less incapsuled in the eye. In another case a portion of iris removed from the sympathetically inflamed eye furnished

the same cocci. The results of his investigations led him to the conclusion which he expresses as follows: "I have been led by all the facts brought forward to form the opinion that in all probability the sympathetic ophthalmia met with in man is an inflammation spreading from the first to the second eye along the optic nerve; that the exciting cause is either a micro-organism, which in some manner has been introduced into the eye, or perhaps, though rarely, a chemical irritant as well."

SURGERY.

ON LIFE-SAVING FROM DROWNING BY SELF-INFLATION.—Dr. Henry R. Silvester, who is a Fothergill Medalist of the Royal Humane Society, makes the following remarkable suggestions in a recent number of the *Lancet*. He has already demonstrated at the International Fisheries Exhibition the possibility of inflating the subcutaneous space in animals so as to render them sufficiently buoyant to be employed either singly or yoked together to convey persons from a wreck to the coast; and later, by means of a blow-pipe and elastic syringe, he inflated at the wrist the subcutaneous tissue of the whole body with the result that in a few minutes sufficient air passed under the skin to support a weight in water of between forty and fifty pounds. This amount is considerably more than would be required to preserve a person from drowning, nine or ten pounds being considered sufficient.

His proposed operation consists in making a small puncture—not larger than would allow, for instance, of the passage of an ordinary blow-pipe—in the mucous membrane of the inside of the mouth, the object being to open a communication for the passage of air from the cavity of the mouth into the subcutaneous spaces of the neck. The situation chosen for the puncture is in the angle formed between the gum of the lower jaw and the side of the under lip or cheek about opposite the first molar tooth of the lower jaw. The point of the instrument perforating should be passed down a short distance between the skin of the side of the face and the superficial fascia of the neck, taking care not to puncture either the skin or the superficial fascia. This having been done, and the instrument removed, in order to inflate the skin of the neck and chest, the patient should close the mouth and nose, and make a succession of forcible expiratory efforts, when the air contained in the cavity of the mouth will pass freely into the subcutaneous tissue of the neck. These expiratory efforts, inspiration being effected through the nostrils, should be continued until the skin is fully distended with air, which will pass readily to both sides of the neck and down the chest as far as the nipples; and this is all that is required to render the body buoyant in water. Should it so happen that the superficial fascia has been punctured and the air pass beneath it, the only difference in effect would be that the extent of air would be limited by the attachments of that membrane to the clavicle below and the border of the jaw above. The amount of air which the skin of the average neck is capable of holding without undue distension has been measured, and found to be enough to support ten pounds, and this is amply sufficient to support the body immersed in water. The time required for inflation is found to be less than three minutes. The neck may be kept in an inflated condition by closing the puncture by pressure on the outside of the cheek by the finger, or by keeping the mouth distended with air; and when required the air may be immediately discharged from the neck by allowing the puncture to remain open, or by suction.

The advantages he sums up as follows:—1. The proceeding is perfectly harmless and almost painless, quickly done, and almost immediately recovered from. 2. It may be learnt in a few minutes, no technical knowledge being required, and may be accomplished by the person himself without assistance. 3. No special apparatus is required. In an emergency the point of a penknife, or even a sharp pointed splinter of wood, is all that would be required. The inflating apparatus is the person's own lungs. 4. The air could be repeatedly re-inflated, and even during prolonged immersion.

OBSTETRICS AND GYNÆCOLOGY.

THE TREATMENT OF THE UMBILICAL CORD.—Credé and Weber (Leipzig, in the *Archiv. f. Gynäk., Edin. Med. J.*) set themselves to answer the questions, How is bleeding from the divided cord to be obviated? and, How is inflammation and its results, of the fœtal portion, to be prevented? In the first place, they state that they are dissatisfied with the ordinary methods of secural by tape or linen; but both from clinical experience and as a result of experiments made on cords post partum, they recommend strongly the use of elastic ligatures, as suggested by Budin, and as used by them in Leipzig for the past eighteen months, with perfectly satisfactory results. The ligature used is 2 mm. thick, and is tightly wrapped round the cord, tied, and again taken half round and retied. As by this means the operator can be perfectly certain that there will be no bleeding, the point ligatured should be close to the skin on the cord, as, according to the writers, the shorter the portion left attached to the child, the less chance is there of traumatic inflammation. The after-treatment simply consists in keeping dry wadding round the stump, and carefully drying after the child has been bathed. Since the above treatment has been followed in the Leipzig Maternity, there have been no cases of umbilical disease.

STATE BOARD OF HEALTH OF WEST VIRGINIA.—The vacancy in this Board caused by the resignation of Dr. James E. Reeves, has been filled by the appointment of Dr. L. D. Wilson, of Wheeling, W. Va., by the Governor of the State.

THE

Journal of the American Medical Association.

PUBLISHED WEEKLY.

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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SATURDAY, FEBRUARY 28, 1885.

MEDICAL EDUCATION AND THE AMERICAN MEDICAL ASSOCIATION.

CAMDEN, N. J., Feb. 9, 1885.

EDITOR JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION:

Dear Doctor: I have not seen any report in the JOURNAL of the resolution on medical education offered by me and passed at the last meeting of the American Medical Association at Washington.

On offering the resolution, I stated that I was impelled by the consideration of the facts that, for years past, men could graduate at our leading colleges without ever having so much as felt a man's pulse or listened to a diseased lung; that the science of medicine was the most difficult and complex of all sciences; that the proper understanding of the human system, the intricate nature of disease, the difficult problems of therapeutics, really required and should receive more training for their proper understanding and application than the art of shoeing a horse or making a shoe for a human being; that the two courses of instruction of about five months each, alleged to have been given a graduate by about ninety out of one hundred American Medical Colleges, was ridiculous in the extreme; that the courts and the intelligent people of this country as well as abroad had refused to acknowledge that the diplomas of these colleges represented a proper medical education; that I had been officially informed by letter that the University of New York had to abandon the effort recently made to give a better course of instruction and go back to the ten months' course, "*because the profession would not support it*," and that the issuing annually of thousands of diplomas to young men thoroughly unprepared to assume the awful responsibilities of a physician was an outrage on the community and ruinous to the profession itself.

Since last spring the subject has been extensively discussed all over the country and in the different medical journals, and the silence of our Journal has been extensively commented upon. I have therefore sent you with this letter two or three marked articles, which I hope will enable you to publish a pretty fair account of that important matter as it was handled at our last meeting.—Very respectfully yours,

D. BENJAMIN.

In regard to the first clause in the foregoing letter, we have only to remark, that if our correspondent has not seen any report of his resolution in the JOURNAL, it is because he has not looked in the right place for it. If he will look over the full record of the proceedings of the meeting in Washington, as reported officially by the Permanent Secretary, and published in the JOURNAL for May 24, 1884 (only a little more than two weeks after the meeting was held), he will find, on page 565, of volume 2, his resolution correctly given, together with the fact of its discussion and adoption. We have copied his letter here, however, more particularly for the purpose of correcting the impression apparently entertained by many, as indicated by the criticisms, or more properly the disparaging remarks, frequently heard concerning the unwillingness of the American Medical Association to allow a free discussion of the subject of medical education at its annual meetings. It is proper to say that, so far as we have observed, these disparaging remarks are made either by members who have begun to take part in the doings of the Association only during the last few years, or by editors of medical journals who have never taken the trouble to attend half-a-dozen meetings or even to maintain an active membership in the Association, or to make themselves acquainted in any adequate degree with the past action of the Association in regard to the important subject of the education of our profession. If these zealous friends who have not yet learned that the adoption of a resolution by a society organization, declaring what *ought to be done*, is not quite equivalent to the enactment of a law by a properly constituted legislative body, will take a glance over the first twenty annual volumes of Transactions, they will find in each the record of an able report from the standing committee on Medical Education, and the discussion and adoption of resolutions both numerous and explicit, sufficient, indeed, if added to the several annual reports, to make a fair sized octavo volume. They will find also that the twenty years of discussions and resolves culminated, in 1866, in an earnest appeal to the medical colleges of the country to hold a delegated convention from their faculties, and agree upon a more thorough, systematic and extensive system of

medical college education, which might be adopted by all the schools in concert.

If they look carefully enough, they will find that in response to such appeal a very creditable college convention was held the following year in Cincinnati, presided over by that eminent scholar and professional teacher, Dr. Alfred Stille, of the Medical Department of the University of Pennsylvania. This convention, after a three days' session, agreed upon and recommended a system of medical college education, to be preceded by an adequate general education, as comprehensive, systematic and thorough as the most zealous of the critics of the present day would be willing to comply with. This action was reported to the American Medical Association, then holding its annual meeting in the same city, and it received the prompt approval of that body. (See Transactions, vol. 18, page 28, 1867.)

Two years later, May, 1869, another convention of delegates from medical colleges was held in Washington, presided over by no less a personage than the late Dr. Samuel D. Gross, of the Jefferson Medical College. After a free discussion, that convention simply renewed the recommendations of the former one, and their action was again promptly endorsed by a vote of the Association, then in annual session in the same city. These acts of the association, fully recommending the exaction of a fair standard of general education before commencing the study of medicine, and the study of medicine three years, embracing three consecutive graded courses of medical college instruction, with adequate hospital clinical facilities, still stand on the records unrepealed and unaltered by any subsequent action as the deliberate expression of opinion by that body. It is true that only a moderate number of the medical colleges have adopted these recommendations. But in this number are several of the oldest and most reliable colleges in this country.

Many others, however, are making some progress in the same direction; and under the pressure of the strong public sentiment largely developed by the numerous able reports and discussions to which we have alluded, this progress will be accelerated from year to year. And yet, so long as the college diploma is accepted as equivalent to a license to practice medicine and surgery, without a further and independent examination of the candidate, the temptation to make its acquirement easy and cheap as a means of increasing the number of students in any given college, will remain too strong to be successfully resisted. Indeed, if all the respectable medical colleges at present existing in the United States were to adopt simultaneously the full curriculum recommended by the college conventions of 1867 and 1869, the general incorporation laws existing in most of the states would enable any half-dozen doctors to unite in effecting the organization of a medical college, with authority to confer degrees on as easy terms as they might choose. What is most needed, therefore, at this time, is not mere general resolves that the standard of medical education should be elevated, but a harmonizing and concentration of the influence of the profession in favor of the establishment of reliable and independent tribunals for determining the qualifications of all who may ask for permission to practice the healing art in any of its departments.

PAPERS FOR THE SECTIONS OF THE ASSOCIATION.—In another place will be found the notice of Dr. R. S. Sutton, of Pittsburgh, Pa., chairman of the Section of Obstetrics and Diseases of Women, requesting all those who intend to present a paper in that section at the coming meeting in New Orleans, to notify him without further delay.

And we take this occasion again to remind all who may be intending to present papers in any of the sections, that the by-laws of the association make it their duty to notify either the chairman of the Section or the chairman of the Committee of Arrangements of the titles and contents of their papers at least thirty days before the time of the next meeting, which this year will be on the 28th day of April, 1885.

COMMA-BACILLI AND CHOLERA.—From the second report of the Special Cholera Commission in India, it is stated that Dr. E. Klein has found the true cholera-bacilli of Dr. Koch in tanks of water in India, which water was being freely used by large numbers of people, among whom no case of cholera had occurred. If this statement is correct, it has a very important bearing upon the question whether these bacilli have any real etiological relations to cholera or not.

NEW BUILDING FOR THE ARMY MEDICAL LIBRARY AND MUSEUM.—The bill appropriating $200,000 for the erection of a fireproof building for the accommodation of this very valuable library and museum has passed the House of Representatives and will doubtless become a law before the close of the present Congress.

SANITARY COUNCIL OF THE MISSISSIPPI VALLEY.—The Seventh Annual Meeting of this organization

will be held in New Orleans, commencing Tuesday March 10. at 11 A.M. The subject of Cholera and its prevention will engross a large part of the attention of the Council.

CORRECTION.—The name "F. B. Brown, of Baltimore," which appears in the list of permanent members of the Association as published in number 26 of the Journal, volume III, should have been T. Barton Brune, of Baltimore, Md.

GAILLARD'S MEDICAL JOURNAL.—We are informed that the publication of this Journal will be continued by M. E. and E. W. Gaillard, with Dr. P. Brynberg Porter as editor and a number of able Collaborators.

RESIGNATION.—We notice with regret that Dr. J. E. Reeves, of West Virginia, has been constrained to resign his office as Secretary of the State Board of Health of that state on account of ill-health.

SOCIETY PROCEEDINGS.

CHICAGO MEDICAL SOCIETY.

At the meeting of February 16, 1885, Dr. C. E. Webster read a report of a case of "Malignant Growth of the Thyroid Gland."

The patient was a woman about sixty years of age. Her general health was quite good. The enlargement in her neck was first noticed about one year before the first consultation. It commenced in one lobe of the thyroid, and rapidly extended to the adjacent glands and tissues of the neck. Rubbing with liniments appeared to relieve this swelling, but it never entirely disappeared, and at the time of first seeing the patient the gland had begun to enlarge again. Swallowing was difficult and the voice was husky, although respiration was not impeded. The thyroid gland, larynx, trachea, and neighboring cervical glands, formed an irregular, doughy mass. In the diagnosis of this case, there were two possibilities to be considered—tertiary syphilis and cancer of the thyroid. The history of progression of the disease from an enlargement of the thyroid, and the fact that such enlargements of this gland in people past middle life are almost invariably malignant, rendered the diagnosis easy. A short course of specific treatment, and an observation of the steady progress of the disease, confirmed the early diagnosis. The patient passed on to a gradual exacerbation of her difficulty, and recently died of exhaustion.

The microscopic appearance of this growth is sometimes peculiar, hardly differing from that of a benign tumor of the same organ. So that oftentimes in these cases a positive diagnosis is difficult from a microscopic examination alone. The reader then recited an instance in the service of the Massachusetts General Hospital, where such a doubtful tumor proved itself to be malignant by its recurrence after excision. In this case the alveoli were lined with cuboid cells and filled with a homogeneous substance.

Dr. F. Carey inquired, by referring to the case that occurred at the Massachusetts General Hospital, if the alveoli were filled with a homogeneous substance, where, then, were the cells situated?

Dr. E. J. Doering asked, If removal of the gland by surgical procedure would have been justifiable in the author's case.

Dr. L. H. Montgomery inquired as to the dimensions of the growth of the tumor situated on the thyroid. Also, did it appear to extend uniformly in various directions, and if the author had any idea as to the functions of the thyroid? Might not the thyroid be located for the purpose of protecting the trachea, or act as a sort of reservoir analogous to that of the spleen?

Dr. Webster replied in substance as follows: That the lumen of the alveoli were filled with a homogeneous substance and the cells were arranged peripherically, in the hospital case that he made mention of.

Regarding the case he presenfed in his report: At the time of first consultation the disease had progressed to such a stage that it would have been impossible to perform an operation successfully, as the deep tissues of the neck, including the œsophagus, were involved in the growth. The time for an operation, therefore, would have been at the time when the growth was first noticed. The size of the growth on the thyroid was as large as a hen's egg or half a hen's egg, and it extended in various directions, so that the tissues of the neck felt like a doughy mass, although the submaxillary glands were not involved in it. Regarding the functions of the thyroid gland he had no theory to offer. It is a ductless gland, the same as some others throughout the human system.

Tænia Solium in a Child Two Years of Age.—Dr. C. G. Davis read a report of a case of *tænia solium* occurring in a child two years old and exhibited about four inches of the worm, including the head.

He was first called to see the child December 10, last, when it had not entirely recovered from an attack of entero-colitis, which it suffered from throughout the summer and autumnal months. The child still had, occasionally, the usual symptoms of cholera infantum, such as vomiting, indigestion, diarrhœal, discharges, etc. Immediately the child was given a number of simple remedies, with raw beef. This treatment seemed to act properly. In a little while portions of tænia began to appear in the discharges.

The child was then given a half-teaspoonful of the French prepared preparation Peletierin and followed in an hour with twenty drops of tr. jalap and a tablespoonful of castor oil. This was followed by the expulsion of three or four yards of the worm, but the head was not found. The child was then carefully nursed and its general health looked after, when segments of the worm again appeared in the evacuations.

A double dose of the quantity of peletierin, tr. jalap and castor oil, as above stated, was administered, when several (7 or 8 feet) more feet of the worm was dislodged, including the head, which he then exhibited to the society.

Dr. Doering stated that he had treated three children having tænia, one of which was 9 years old, another 4 years of age, and a baby that was but 6 months old. The last case had been fed on raw beef whilst being sick with entero-colitis. He was surprised to hear of Dr. Davis' success with the remedies he had used, given in such small quantities, as he had himself practiced the same method of treatment and with larger doses of the peletierin, with but partial success only.

Hygroma Linguæ.—Under somewhat of a disadvantage Dr. Josef Zeisler reported a congenital case of this rare disease, or bearing this title, which is under his care. Said he: It is a strange disease of the tongue that has occurred to Emma L., who is now about 9 years old. She has suffered from the trouble since her birth. The child is well nourished, but her complexion is pale. Her face is asymmetrical to a considerable degree, and its formation is very incommensurable in a number of respects. The right half of her face is much more developed in its muscular and osseous formation than its opposite side. No swollen submaxillary or cervical glands are present. Her tongue was described as having the following appearance: It is much thickened, the surface appears to consist of small vesicles or cysts, varying in size from a pinhead to that of a pea, lying by the side of each other in the form of mosaic pieces of work, or in a tessellated shape. These cysts seem to contain a colloid mass, and this condition affects the entire visible portion of the tongue, so that no intact mucous membrane can be seen. Over the middle of the tongue there extends a kind of cockscomb or carunculated excrescence, or cristate in form, of the same appearance, but presenting a more papillary or warty resemblance. These crists are also found on the mucous membrane of the right cheek near the angle of the mouth. In handling or touching the tongue, the surface imparts a sensation as if it consisted of oil-globules or boiled sago. The movements of the organ, as well as speech, are not impeded, nor is the sense of taste in the least impaired. There are no spontaneous pains proceeding from it, and pain arises only when strong compression is made upon her tongue, or, as the child says, when acid substances are taken. Relatives of the child report that its tongue was formerly much larger, although it sometimes now appears to become œdematous and then grow smaller again. Her parents and her five brothers and sisters have always enjoyed good health and are in a healthy condition at the present time.

The writer regards this disease from a pathological standpoint as a colloid degeneration of the mucous membrane of the tongue, but he could not classify it clinically, having never seen a similar case previously. A microscopical examination was not permitted to be made of any of the cysts or their contents. Galvanopuncture was suggested as a remedy, which was also declined. Dr. E. Andrews, Dr. C. T. Parkes, Dr. J. N. Hyde, and several other well-known physicians had seen this case, but could add nothing further of interest relative to it, nor to the treatment. They had neither of them seen a similar case. Dr. Doering had seen this patient two years ago. The tongue then presented a "sago pudding" appearance, and he presumed it still retained the same features. He further stated that only two cases thus far have been reported in literature. It is probable that the child will be presented before the Society at a future meeting.

Exhibition of the "Koch comma bacillus of Asiatic cholera," by Dr. L. L. McArthur.—The speaker addressed the Society orally, during which he stated that Koch had devoted more time and study to the solution of the cholera problem than any other physician, and from the fact that he has so far established his cholera theory over all opposing ones, and successfully met all arguments, no little interest in the subject is felt by the people of this country, inasmuch as cholera may cross the ocean during the coming summer. The comma bacillus of Asiatic cholera is distinguished only when magnified about a thousand times (to 1,600 times). They can be taken into the stomach with water, and although very few may be swallowed, their power of reproduction is so wonderful that in a day the victim will be suffering the agonies of a fully developed case. The disease, the speaker continued, is said to be the irritation in the stomach and alimentary tract caused by the presence of these *pests*. The water in the blood is lost, and if the disease is not checked or arrested death ensues. The germs pass from the victim and, by going through the sewers and down the rivers, cause the disease and death to the people living along the streams. The germs may also be carried in the air, or in the clothing. Moisture is an essential condition for their reproduction or life. If they are placed in a warm, dry place, they will die in a few weeks' time. Koch, in his experiments, carried this comma bacillus through forty cultivations or generations, and the last cultivation, introduced into the stomach of a dog, brought on cholera Asiatica, and death resulted in three days.

The bacilli exhibited were received from Koch's laboratory but a few days ago, and were sent by Dr. Odo Betz, from Tübingen, Germany, to Dr. Doering, of this city, and are the first ever exhibited in Chicago.

A number of the members participated in an informal discussion of cholera Asiatica and cholera nostra, and the specimens were closely examined.

The Society then adjourned.

LISTON H. MONTGOMERY.

STATE MEDICINE.

WHEELING, W. VA., Feb. 5, 1885.

TO HIS EXCELLENCY GOVERNOR JACKSON.

Dear Sir: The fear which I expressed to you many weeks ago, that I should not be able, because of my poor health, to continue in the service of the

state to the end of my official term (1888), I find, to my inexpressible sorrow, fully realized much sooner than I had expected. I am, therefore, compelled to lay down the office with its honors which you conferred upon me in June, 1881, and beg that you will accept my resignation to take effect Monday, the 23d inst., at 12 o'clock M.

Let me tell you truly that I can find no words to fitly express my regret that I am compelled to retire from the State Board of Health, for God knows how earnestly my whole heart has been engaged in the work.

From the date of the organization of the Board to the present, my association with my colleagues has been a source of continued pleasure; and from Your Excellency I have received many kindnesses which greatly encouraged my labors, and for which I shall never forget to feel grateful. Indeed, I am under many and lasting obligations to the officers of each department of the state government for courteous acts.

Finally, need I assure you of my continued interest in the cause of the public health?—in the higher and higher standard of the medical profession within our borders?—and in West Virginia's prominence in the cultivation of sanitary science? All these are too near my heart to be neglected or forgotten.

Believe me, Very truly yours,

JAMES E. REEVES.

STATE OF WEST VIRGINIA,
EXECUTIVE DEPARTMENT,
WHEELING, Feb. 18, 1885.

JAMES E. REEVES, M.D., SECRETARY STATE BOARD OF HEALTH, WHEELING, W. VA.

Dear Sir: I am in receipt of your communication, of date the 5th instant, requesting the acceptance of your resignation as a member of the State Board of Health, to take effect on Monday, the 23d instant, at 12 o'clock, M.

I greatly regret that the condition of your health compels you take this step. You have been identified with the Board from its organization until the present time. Its objects have been not only, by investigation and proper action based thereon, to promote the public health, but also to elevate the standard of the medical profession in the state. To these objects I am aware you have devoted a large share of your valuable time, aided by a ripe experience in medical and sanitary science. Your labors, in conjunction with the other members of the Board, have raised the standard of the profession to a higher plane than before attained by it, and through the operation of our health laws placed the state on advanced ground in the development of sanitary science.

I had hoped that your valuable services would have been continued, at least until the end of your term, and until this department of the state's service had become so firmly established as not to be endangered by the loss of so efficient an officer.

In accepting your resignation, it is with the hope that your health may be speedily restored, and that you may from time to time, by your counsel, aid the Board in carrying forward the great work for which it was created, so that the objects which you have had so much at heart may be fully realized and result in lasting good to the people of West Virginia.

With the highest regard, and my best wishes for your future health and happiness, I am

Very truly yours,

J. B. JACKSON.

FOREIGN CORRESPONDENCE.

LONDON LETTER.

LONDON, Feb. 1885.

At a meeting, convened by the Vegetarian Society and held in Exeter Hall, the chairman said they had served 161,000 meals during the late International Health Exhibition, or an average of about 910 per day; after paying rent and all expenses they were in a position to return the guarantee fund subscribed by their friends in aid of the experiment, and there remained a balance of over £100, besides their crockery, tables and cooking utensils. The money balance, in accordance with the public undertaking of the Society, was being spent in vegetarian meals for the poor in several large towns. Miss Anna Kingsford, M.D., protested against the representations of those who seemed to think that vegetarians wished to send men out like Nebuchadnezzar to graze, to make them eat cabbages in the morning and grass in the evening. She maintained, however, that men were classed anatomically and physiologically with the apes, whose teeth were not flesh-tearing teeth. The apes used their teeth for cracking nuts, and never for masticating mutton chops or eating saddle of mutton. Flesh-eaters were liable to many diseases from which vegetarians were free. She had cured herself of tubercular consumption by living on vegetable food. Having been told that she had not six months to live, and that she must eat raw meat and drink port wine, she had gone into the country and tried cold porridge and fruit, and was there that day on that platform. She had found the shoemaker to make her shoes without leather, and she assured her audience that they did equally well for the muddy streets of London and for climbing the hills of Switzerland.

During the past month the annual treats have taken place at most of the metropolitan hospitals. A pathetically interesting scene was witnessed at King's College Hospital. The resident medical officers, with the aid of sisters, nurses, students and others, had designed an evening's entertainment for the patients. All the wards were pleasingly decorated and illuminated with Japanese lanterns. A Christmas tree was set up in the great hall, which itself was brilliantly illuminated and decorated. A stage was here erected for the purpose of an entertainment devised by the medical officers, and from the various staircase landings those patients who could bear removal from the wards watched with keen interest the performance below. Many of the sick people could only watch the entertainment in a recumbent position, and were carried on their mattresses to their

places. In the Wigram ward, which is tenanted by patients under surgical treatment, the spray-producer was converted by a clever sister into the trunk of a diminutive Christmas tree and decorated with articles humorously suggestive of the names of medical officers. Thus, three cards with the motto "Play fair" suggested the name of the eminent physician. In the Twining ward, distinguished by decorations of twining ivy, a sorry wag of a student ornamented the gigantic dispensing mortar with the motto "De *mortuis* nil nisi bonum," and audaciously attached to the pestle a label inscribed "Pestle-lentia deorum est donum." The entertainment in the great hall included some amateur negro minstrelsy, and particular mention may be made of a topical song in the course of which there occurred a pathetic reference to the small public attention bestowed on King's College Hospital as compared with other public institutions of a like nature. It is a free hospital, and last year over 2,000 patients were taken indoors, while nearly 28,000 persons were treated as out-patients.

Dr. Richie, Medical Officer for Leek, drew attention, the other evening, to what he designated a very startling fact. Since the insurance of the lives of children had become common in that town, he said, the rate of mortality among infants under one year had increased from fifteen to a hundred and eighty-six per thousand. The deaths which formerly were, for children of the age referred to, fifteen in the thousand, had during the past seven years averaged a hundred and seventy. Apart from the logic of facts familiar to all who move much among the most ignorant and brutalized section of our population, it would of course be incredible that the circumstance of a small sum of money depending on the life of a child could at all affect its safety in the hands of parents. That such often is the case, however, there cannot be a doubt, and statistics of any center of population in which infant insurance largely prevails—and it is very much a matter of local custom—would probably put the practice in a light which cannot but suggest the question whether parents should be permitted to realize what must often appear to be a considerable accession of wealth by the death of their children.

There has been a sharp discussion in the *Times* during the last month or so on the subject of brain surgery, and there has been a good deal of acrimonious dispute as to which "school" is entitled to the distinction of having commenced such operations, although any credit attaching to the experiments is considerably diminished by the somewhat important detail that the patients whose cases have been reported appear to have all died. The real fact is that neither Dr. Ferrier, nor any other practitioner of the present day, ought to clamor for applause, as operations of this kind were conducted by Sir Astley Cooper more than fifty years ago. If anyone turns to his "Lectures on Surgery," accounts will be discovered of operations on the skull and brain which are quite as remarkable as any recently reported, and even more so, for chloroform was not then in existence, and some, at least, of Sir Astley Cooper's patients appear to have recovered. He experimented on the brain of a dog before meddling with human beings; it is not, therefore, clear why the practitioners of to day should have deemed it necessary to torture dogs. A paragraph in the report prepared by the India office upon the sanitary measures adopted in India during the year 1882–83 will cause some surprise to those who have hitherto imagined that life in our eastern possessions is very often synonymous with death. "The sanitary progress in British regiments has overtaken that of native corps in their own country." This means that the difference between the rates of sickness and mortality between European and native soldiers is *nil*, and that the matter is altogether dependent upon the adoption of those sanitary laws which modern science has pointed out to be necessary.

Dr. Buckhill's article on proprietary Madhouses is by no means pleasant reading. In England and Wales there are 96 private asylums, more than half of which are owned by women and people other than doctors, who of course carry on a trade in lunatics as they would in any other marketable commodity. Among the reprehensible practices which Dr. Buckhill cites, the most objectionable is perhaps the custom of payment by the owners of asylums to doctors and others who send them patients. The customary fee is 20 per cent., and though the practice has been forbidden by the Lunacy Commissioners, Dr. Buckhill asserts it to be still widely prevalent. Another abuse is the letting-out of keepers, on the terms that the keeper pays half, or at any rate a large proportion, of his wages to the owner of the asylum. The result of this is, that in many asylums there are more keepers than patients. If quiet and harmless lunatics were to be discharged from confinement,—and it has been frequently decided that such people ought not to be shut up,—the doctor considers that many asylums would be at once all but emptied. The abuses of the private madhouse system are, in fact, so numerous that the efficient way of dealing with them would be to order their entire abolition.

G. O. M.

BERLIN LETTER.

BERLIN, Jan. 10, 1885.

PROF. DR. SCHROEDER'S KLINIK STAFF.

1. Dr. Hofmeier: Privatdocent, chief assistant, in charge of poliklinik and of private patients.

2. Dr. Winter: Obstetrical poliklinik (outdoor), which numbers about 1,500 cases per year.

3. Dr. Bokelmann: Gynecological ward; about 40 beds.

4. Dr. Stratz: House obstetrical ward; about 60 beds.

5. Dr. Cohn: Septic carcinomatous and puerperal fever wards, also in charge of microscopic examinations.

6. Dr. Ruge: Assistant to Dr. Cohn in microscopical work. There are three volunteer doctors who live in the hospital, and whose term of service is as follows: 2 months in obstetrical ward; 2 months in gynecological ward, and 2 months in Dr. Cohn's ward. Eight practitioners or older students attend

the labors of poor people in the city, and if operative interference is necessary they report to Dr. Winter. Both Dr. Hofmeier and Dr. Winter have student courses.

NORMAL AND PATHOLOGICAL ANATOMY—FERIENCURSE.

March 16 to end of April, 1885.

1. Dr. Jürgens: (*a*) Fee, 60 marks. Lasts six weeks. Held at Pathological Institute Charité. Pathological anatomy, with section-cutting, Monday, Wednesday and Saturday, 8–10. (*b*) Fee, 100 marks: Normal and pathological anatomy and histology of brain and spinal cord.

2. Dr. Grawitz: Fee, 40 marks. Lasts five weeks. In Pathological Institute Charité. Practical course on pathological histology, Tuesday, Thursday and Friday, 8–10.

3. Dr. Weinicke: (*a*) Fee, 40 marks. Eight weeks. 5 Dorotheen str. Anatomy of brain and spinal cord, with demonstrations, Tuesday, Thursday and Saturday, 5–6.

4. Dr. P. Guttmann: Fee, 30 marks. Lasts four weeks. Hospital Moabit. Pathological anatomy, with demonstrations.

5. Dr. Brœsike: (*a*) Fee, 40 marks. Lasts six weeks. Anatomical Institute. Normal anatomy, with demonstrations, every day, two hours. (*b*) Normal anatomy of viscera.

6. Dr. Rabl. Rückhardt: Fee, 30 marks. Lasts six weeks. Normal histology, Monday, Tuesday, Wednesday and Saturday, 8–10.

7. Dr. Israel: Fee, 30 marks. Pathological Institute Charité. Normal histology.

8. Dr. M. Wolff: Fee, 30 marks. 5 Dorotheen str. Lasts eight weeks. Examinations for bacteria, Monday and Thursday, 2–4.

9. Dr. Mendel: Fee, 40 marks. 27 Carl str. Anatomy and pathology of the brain and spinal cord, Wednesday and Saturday, 6–7½.

PRACTICE OF MEDICINE—FEREIN CURSUS.

1. Dr. A. Fränkel: Fee, 30 marks. Charité room 7. Lasts five weeks. Clinical medicine, ascultation and percussion, Monday, Thursday and Friday, 11–12½.

2. Dr. Litten: Fee, 30 marks. Augusta Hospital or 27 Carl str. Lasts six weeks. Clinical medicine, auscultation and percussion, 11–1 and 12–2.

3. Dr. P. Guttmann: Fee, 30 marks. Lasts four weeks. Hospital Moabit. Clinical medicine, diagnosis; visits in wards of hospital, Monday, Tuesday, Thursday and Friday, 9½–11.

4. Dr. Riess: Fee, 30 marks. Lasts eight weeks. Hospital Friedrichshain. Diagnosis, Wednesday and Saturday, 11–12½.

5. Dr. Zuelzer: Fee, 40 marks. 6 Leipziger platz. Examinations of urine, pathology of the kidney and bladder, Sunday, Monday, Tuesday, Thursday, Friday and Saturday, 10–11.

6. Dr. Lazarus: Fee, 20 marks. Jewish Hospital, 15 August str. Therapeutics of pulmonary disease, Tuesday, Thursday and Friday, 2–3, with special reference to pneumatics.

7. Dr. Lewinski: Fee, 30 marks. 5 Dorotheen str. Lasts nine weeks. Auscultation and percussion, method of examinations, Monday, Wednesday and Saturday, 11–12.

8. Dr. Lublinski: Fee, 30 marks. 5 Dorotheen str. Lasts six weeks. Pathology and therapeutics of the nose, larynx and pharynx, with practical examinations, Tuesday and Friday, 10–11; Saturday, 11–12.

9. Dr. A. Baginsky: Fee, 30 marks. 3 Johannis str. Lasts five weeks. Children's diseases, Monday, Wednesday and Friday, 1–2. Poliklinik.

10. San. Rath. Dr. Ehrenhaus: Fee, 20 marks. 40 Lothringer str. Lasts five weeks. Pathology and treatment of diseases of children. Poliklinik.

11. Dr. E. Grunmach: Fee, 30 marks. 5 Dorotheen str. Lasts six weeks. Auscultation and percussion, Monday, Wednesday and Saturday, 2–3. (*b*) Diseases of respiration and circulation (fee, 20 marks), Tuesday and Friday, 2–3.

12. Dr. Ewald: Fee, 30 marks; 31a Potsdamer str. Diseases of the digestive organs, Tuesday, Thursday and Friday, 10–11.

13. Dr. B. Baginsky: Fee, 30 marks. 24 Markgrafen str. Laryngoscopy and rhinoscopy, three times a week, 6–7.

NERVOUS DISEASES AND ELECTRO-THERAPY.

1. Dr. M. Bernhardt: Fee, 30 marks. 58 Markgrafen str. Lasts five weeks. Electro-diagnosis and therapy, Tuesday, Friday and Saturday, 6–7.

2. Dr. Remak: Fee, 30 marks. 40 Mauer str. Lasts five weeks. Electro-diagnosis and electro-therapy, with clinical demonstrations, Tuesday, Thursday and Saturday, 6–7.

3. Dr. Weinicke: Fee, 30 marks. 5 Dorotheen str. Diseases of the nervous system, Monday, Wednesday and Friday.

4. Dr. Eulenburg: Fee, 30 marks. 27 Carl str. Lasts five weeks. Electro-therapy and neuro-pathological diagnosis, Monday, Wednesday and Saturday, 3½–4½.

5. Dr. Oppenheim: Fee, 30 marks. Charité. Last six weeks. Diseases of the nervous system and electro-diagnosis, Tuesday, Thursday and Sunday, 9–10.

SURGERY.

1. Dr. Hahn: Fee, 40 marks. Hospital Friedrichshain. Lasts twelve weeks. Clinical surgery, Wednesday and Saturday, 8–11. Operations, Sunday, 8–10.

2. Dr. Hans Schmidt: (*a*) Fee, 30 marks. Augusta Hospital. Lasts five weeks. Surgical treatment and after treatment, Wednesday and Saturday, 3½–5. (*b*) Fee, 30 marks: Surgical examinations, Monday and Thursday, 6–7.

3. Dr. Busch: Fee, 30 marks. 40 Dorotheen str. Diseases of the teeth. One month.

EYE DISEASES.

1. Dr. J. Hirschberg: Fee, 40 marks. 36 Karl str. Lasts ten weeks. Practical course, with clinical demonstrations, three times a week, 12–1.

2. Dr. Horstmann: Fee, 30 marks. 6 Potsdamer str. Ophthalmoscopy and refraction, etc., Monday, Wednesday and Friday, 5–6.

DISEASES OF THE EAR.

2. Dr. Schwabach: Fee, 30 marks. Königgrätzer str. 42. Clinical course, with examinations in catheterismus of the Eustachian tube, Monday, Wed., Friday, 6–7.

2. Dr. L. Jacobson: Fee, 40 marks. 5–9 Ziegel str. Lasts six weeks. Practical course, with demonstrations.

3. Dr. B. Baginsky: Fee, 30 marks. 34 Markgrafen str. Diseases of the nose.

GYNÆCOLOGY.

1. Dr. A. Martin: (*a*) Fee, 60 marks. 85 Elsasser str. Examinations and operative demonstrations, 12–3; operations from 7–9 and 11–12. (*b*) Fee, 75 marks: Gynecological operations, 7–9 evenings (Schulze-Winckel phantom).

2. Dr. Landau: Fee, 40 marks. 40 Lothringer str. Demonstrations and examinations, Tuesday and Saturday, 11–1.

3. Dr. H. Löhlein: Fee, 40 marks. 40 Tauben str. Diagnosis.

4. Dr. Hofmeier: Fee, 40 marks. 14–16 Artillerie str. Diagnosis, daily, 12–1.

5. Dr. Veit: Fee, 40 marks. 16 Steinmetz str. Diagnosis, Monday, Wednesday and Friday, 10–11.

6. Dr. Wyder: (*a*) Fee, 40 marks. Charité; Obstetrical operations, with demonstrations from poliklinik, daily, 8–9. (*b*) Fee, 50 marks. Gynecological operations, daily, 3–4½.

DERMATOLOGY AND SYPHILIS.

1. Dr. G. Lewin: Fee, 30 marks. Charité; Syphilis, etc., Wednesday and Saturday, 10–11.

2. Dr. Lassar: Fee, 30 marks. 19 Karl str. Skin.

3. Dr. Zuelzer: Fee, 20 marks. 6 Leipzigei platz. Skin.

4. Dr. Behrend: Fee, 30 marks. 27 Elsasser str. Skin.

5. Dr. Köbner: Fee, 30 marks. 111 Friedrich str. Skin and syphilis.

I have compiled this table with some care, for the benefit of those who contemplate a trip to Europe during the spring. As it gives fees, localities and hours, it will prove a useful guide. I have read with some interest the address of Mr. Lawson Tait upon his return to Birmingham. I have been also somewhat amused at the desperate glee with which he snatches at the straw thrown out by the "eminent surgeon of thirty years' standing and enormous clinical experience" in relation to listerism. Some pretty good surgical work is being done all the time in Germany. The amount of material is very large and very varied. The number of abdominal sections made is also large. The results here are good, although much of the work is done in a *general* operating room, and before a whole class of students. Many have come from pathological and anatomical work, some possibly from infected wards. Now it is a self-evident fact that such results could not possibly obtain under any other conditions than those of full listerism, bichloride of mercury and iodoform. If it is quackery, it is the mightiest discovery for the weal of suffering humanity that has characterized surgery for many a year—and if it is quackery, they who practice it must be quacks—and the following is a right royal and mighty one: Fortunately for surgery, the opinion of the minority does not weigh in the balance, and fortunately for German surgery, much of which is done under the most unfavorable conditions, strict antisepsis is still the rule. The Germans have given us the best pathology in the world, and as a thinking people their practice is based largely upon this. Tait's treatment of uterine tumors has not a very firm hold upon German practice. The operation is quite as difficult and quite as dangerous as a myomotomy, and the results are not as good nor as permanent. Dr. Veit is using sheep-gut ligatures soaked in carbolized solution and hardened in alcohol. I have seen him do some plastic work lately — an Emmet and a ruptured perineum — in which he used the gut and the continuous stitch. The operations were done quickly and with great neatness. Dr. Veit is already in the very foremost ranks of German gynecologists, although still a young man, and his private practice is about as large as that of any specialist here, except, perhaps, Dr. Schroeder. But what is called an Emmet's operation here is not a true Emmet, it is more a partial amputation. They remove first quite a large piece of the anterior lip, and then of the posterior. The edges of the anterior incision are brought together by sutures, before the posterior part is snipped off. I have not yet seen a "paring" of the edges of a laceration, and the bringing of the flaps together with a suture through the anterior and posterior lip at the same, as we are accustomed to do it at home. Dr. Veit's perineo-plastic work is very pretty and quickly done.

H. R. B.

DOMESTIC CORRESPONDENCE.

PHILADELPHIA LETTER.

PHILADELPHIA, Feb. 17, 1885.

MR. EDITOR:

We may expect shortly again to be in the agonies of a canvass for a professorship, Prof. Mallet, but recently elected to the chair of chemistry in Jefferson, having resigned. At this rate, the trustees of that institution will greatly enjoy their position, and perhaps they may come to the conclusion that for a time at least "honors are not easy." Thus far, the only candidates who have appeared being Philadelphians, the canvass may be regarded as not yet begun, inasmuch as no citizens of this metropolis need apply. We would respectfully request the chemists from afar off to put in their applications.

The winter medically has been quiet. Very little practice; nothing of special interest in our societies. But hold! we forget, our county society has been holding a series of meetings for the discussion of an Act to create a Board of Examiners and Licensers of medical men. The debate was earnest, even acrimonious at times; and to an outsider there were many curious features. One school was well represented and fought bravely on one side, another school was equally earnest in opposition, while yet other

schools appeared so little interested that their faculties were only conspicuous by their absence. Slowly the meetings dwindled down, until at the last a handful of members went through the form of voting, and as far as can be judged, the matter now seems to have quieted down. As the whole subject is to come up in the form of a report to our State Medical Society next May, we may look for a renewal of the effort about that time.

We have just been treated to our share of horrors, in the burning of a portion of our Almshouse, the Insane Department. About twenty of the poor insane were thus put to death. It looks just now as if each department of our city government were trying to hoist from its shoulders the onus of the deed. Knowing well the calibre of several of the Board of Guardians, we shall be greatly surprised if they do not put the responsibility where it belongs. One good will result: already the fearful overcrowding, the absence of proper watchmen to guard against just such a calamity, and a host of other evils have been shown, and our city fathers will have the opportunity given them to provide better quarters. It is proposed, as soon as can be done, to separate the almshouse proper with its hordes of able-bodied paupers from the indigent sick or insane. This will be a just arrangement, for hitherto it has frequently occurred that the worthy sick have refused to accept a bed in this hospital because it was the "Poor-house."

From the present outlook, it appears as though, after much hard work for the last ten years, we are to have a State Board of Health. The people now seem to have been educated to a knowledge of the value of such a body, and are aiding the profession in their efforts to that end. A committee of our State Medical Society met the Judiciary Committee of our Legislature last week, and gave these law-makers their views on the subject. Now, if the bill passes, and the composition of the Board can be kept out of the hands of politicians, the old Keystone State will at last be able to present herself in the line as prepared to prevent disease, or to speedily stamp it out, should it make its appearance.

We have a new candidate for medical preference, in the shape of the Medical Journal which Messrs. Parke, Davis & Co. have transplanted from Detroit. It presents a neat appearance, and as its backers have plenty of money and are very determined in what they undertake, it is probable that the new Journal may continue with us awhile. We predict, however, that certain changes may become imperative, but as we do not desire to pose as a prophet, we shall merely say, "told you so," when these occur in the near future. We have now the Medical News, Messrs. Lea's organ; the Medical and Surgical Reporter; the Medical Times, the organ of J. B. Lippincott & Co.; the Medical Bulletin, which is of the firm of F. A. Davis & Co.; the College and Clinical Record, which is devoted to the interest of the Alumni of Jefferson, and is expressly announced as *not* the organ of that school; the Polyclinic, which is edited in the interests of the institution of that name; and the Medical World. There may be a few more, but as they do not burden our table, we are unable to quote them.

In order to prepare the common people for our possible visitor next summer, our societies and at least one of our colleges have been kindly circulating postal cards, asking the profession to call and view, gratis, a specimen of the "comma bacillus," or "cholera bacillus." I believe that great care has been taken by Prof. Koch, from whom each of these little gentlemen has been received, hence they are real, simon pure, to cage the animal so securely that he cannot get loose, and we are reasonably secure against the importation of the pest by this avenue. It is an excellent idea, and soon we shall find our gamins selling small microscopes at the street corners by which each may inspect for himself and be able at once to detect its earliest arrival.

We are rapidly approaching our spring delivery, and we look for the usual outpour of doctors, dentists and pharmacists. We cannot speak too strongly our praise of our School of Pharmacy. For many years it has stood as the educator of our apothecaries, and has been the means of doing a world of good. As long as we pour out M.D's so illy prepared, let us endeavor to prevent a portion of evil by furnishing pharmacists skilled to make their crude efforts at least harmless to the unfortunates who recklessly employ the "new young doctor," because he is cheap. It has often been said that as the stream cannot rise above its source, so the medical profession will improve in ability, as is the demand by the people for educated physicians. The people prefer cheap goods and they get them. They demand humbugs, and the supply equals the demand. Apropos of this, "Monsieur Tonson, come again." Diploma Buchanan is once more in the courts and diplomas are for sale. Nothing is so easy to check as this. When the German government took hold of the matter, and after investigating it through our valuable Consul, Mr. White, and their own Barons, Theilman and Schlotzer, it was finally required that a diploma, to be useful in the Prussian Empire, must be attested by the American Medical Association, through its Permanent Secretary. Why should not this plan be followed by all foreign governments? No bought diploma, nor one emanating from a bogus college, could prove of value to its possessor save in our own free land. As we cannot have a general law in America, the only hope is the plan pursued by Illinois, and then the gradual dying out of the brood of bogus doctors may some day give the name of medical doctor its proper high position. Yours, PHILADELPHIA.

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419 PENN AVENUE,
PITTSBURGH, PA., Feb. 23, 1885.

DR. N. S. DAVIS, EDITOR.

Dear Sir: Please insert the following card as soon as convenient. Gentlemen desiring to read papers before the Obstetrical Section at the next meeting of the Association at New Orleans will please send in the subjects of their papers, as there is room left for only a few more.

Very respectfully yours,

R. S. SUTTON,
Chairman of Obstet. Section.

NECROLOGY.

NEW YORK POLYCLINIC, Feb. 21, 1885.

N. S. DAVIS, M.D., EDITOR JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

Dear Doctor: At a meeting of the members of the medical profession attending the New York Polyclinic, the following resolutions were this day unanimously adopted:

WHEREAS, In the inscrutable providence of God, Professor Louis Elsberg has been removed from this life;

Resolved, That in his death science has lost an earnest and indefatigable student, the medical profession an honorable member and widely known teacher, and society one with broad and humanitarian sympathies.

Resolved, That we offer to his family assurances of sympathy, and, as a testimony of our regard for his character and attainments and a sense of our personal loss in his death, that we, the members of the class of the New York Polyclinic, attend the funeral in a body.

Resolved, That copies of these resolutions be sent to his family, to the Faculty of the Polyclinic, and to the medical press of the country.

EUGENE L. FRIDENBERG, M.D.,
J. T. HERRICK, M.D.,
W. T. GOTT, M.D.,
JNO. C. BERRY, M.D.
M. T. MOORE, M.D., Chairman.
Committee on Resolutions.

Fraternally,
MOSES T. RUNNELS, M.D., *Secretary*.

MISCELLANEOUS.

NASHVILLE, TENN., Feb. 21, 1885.

The fifty-second annual meeting of the Medical Society of the State of Tennessee will be held at Nashville, commencing the second Tuesday in April, and will be in session three days, April 14, 15 and 16. The Society will be called to order on the 14th, at 12 M., in the State Capitol.

The members are reminded that at the last meeting of the Society the initiation fee was fixed at $5, the assessment on members in attendance, $2; for those not present, entitling them to the transactions, $1.

The volunteer plan in regard to papers succeeded so well last year, that it is hoped the members will show the same interest in the welfare and progress of the profession in Tennessee, and come prepared with papers and reports of cases of interest. Those contemplating presenting papers are requested to notify the secretary at an early day.

The American Medical Association meets in New Orleans April 28, and members of the profession who desire to attend that should attend this meeting, so as to be appointed delegates. The last meeting of the Society was the most successful ever held in the fifty-two years of its existence, and this one promises to be equally so. The railroads have granted special rates, and some valuable essays and committee reports have been promised.

C. C. FITE, *Secretary*.

The Louisville & Nashville railroad will sell round trip tickets at 4 cents a mile on the 13th and 14th, good to return until the 18th. The tickets can be bought at all stations in Tennessee.

The Nashville, Chattanooga & St. Louis railroad will sell round trip tickets at 4 cents a mile on the 12th, 13th and 14th, good to return until the 18th. The tickets will be sold from the following stations only:

Chattanooga, Wauhatchie, Whitesides, Shellmound, Bridgeport, Stevenson, Sherwood, Cowan, Decherd, Winchester, Huntland, Fayetteville, Estell Springs, Tullahoma, Manchester, Morrison, Smartts, McMinnville, Rock Island, Sparta, Wartrace, Shelbyville, Belle Buckle, Fosterville, Murfreesboro, Lebanon, Silver Springs, Kingston Springs, Dickson, McEwen, Waverly, Johnsonville, Camden, Huntington, McKenzie, Dresden, Martin, Paducah Junction, Union City.

The East Tennessee, Virginia & Georgia railroad will sell round trip tickets at 4 cents a mile on the 12th, 13th and 14th, good to return until the 18th.

N. B.—The railroads will not recognize certificates for return passage, so these round trip tickets should be secured in all cases, *and bought during the business hours of the day*.

The granting of these special rates is a courtesy shown by the railroad managements to the Society, and their rules should be cheerfully complied with.

SANITARY COUNCIL.

The Executive Committee of the Sanitary Council of the Mississippi Valley has fixed the date of the seventh annual meeting of the Council for Tuesday, March 10, prox., and in the city of New Orleans. This is about a month earlier than its meetings are usually held, and the Committee assigns as a reason for the change the probability of Asiatic cholera appearing in the country, and the uncertainty concerning National legislation on public health matters. Invitations are extended to all state and local health authorities in the Valley, and to representatives of commercial and transportation interests.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, UNITED STATES ARMY, FROM FEBRUARY 14, 1885, TO FEBRUARY 20, 1885.

Patzki, Julius H., Captain and Assistant Surgeon, leave of absence further extended seven months on surgeon's certificate of disability. (S. O. 40, A. G. O., February 17, 1885.)

Perley, L. O., Captain and Assistant Surgeon, granted leave of absence for one month, to take effect about March 5, 1885. (S. O. 16, Department of Dakota, February 10, 1885.)

Robinson, S. Q., Captain and Assistant Surgeon, relieved from duty at St. Spokane, W. T., and ordered for duty as Post Surgeon, Fort Klamath, Oregon. (S. O. 23, Department of Colorado, February 9, 1885.)

Kean, J. R., First Lieutenant and Assistant Surgeon (recently appointed), assigned to duty at Fort Sill, Indian Territory. (S. O. 23, Department of Missouri, February 11, 1885.)